

RETURN to an Order of the Honourable The House of Commons,  
dated 6 March 1891 ;—for,

“EXTRACTS from REPORTS upon the POTATO CROP, 1890, made for the IRISH LAND COMMISSION, in certain UNIONS of the Counties of CLARE, CORK, DONEGAL, GALWAY, KERRY, LESTRIM, LIMERICK, MAYO, SLIGO, WATERFORD, and WEXFORD, by Messrs. *Cunningham, Dillon, Doran, Eyre, Headeck, Porter, and Roberts*, Assistant Commissioners, with a REPORT upon the POTATO CROP of GREAT BRITAIN in 1890; and also upon the Supply and Distribution of SEED, with Suggestions.”

(*Mr. Arthur Balfour* )

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*Ordered, by The House of Commons, to be Printed,  
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EXTRACTS from REPORTS upon the POTATO CROP, 1890, made for the IRISH LAND COMMISSION, in certain Unions of the Counties of CLARE, CORK, DONEGAL, GALWAY, KERRY, LEITRIM, LIMERICK, MAYO, SLIGO, WATERFORD, and WEXFORD, by Messrs. *Cunningham, Dillon, Doran, Eyre, Headeck, Porter, and Roberts*, Assistant Commissioners, with a REPORT upon the POTATO CROP of GREAT BRITAIN in 1890; and also upon the Supply and Distribution of SEED, with Suggestions.

## GENERAL REMARKS BY MR. PORTER.

Irish Land Commission,  
Agricultural Department, Dublin,  
18 September 1890.

In furnishing my Report upon the potato crop in Donegal, together with Mr. Eyre's Report upon it in Galway and Mayo, I beg leave to submit for your consideration the following general remarks, which would apply to any portion of Ireland.

Potato seed imported from America direct to Ireland seldom does well. It cannot be relied on. (See p. 83, L.G.B. Report, 1881.)

The greatest care must be taken to ensure seed being taken from land which will produce a good change to the wet, poor soils of Donegal. Mr. James Robertson, jun., whom I consulted on my return from Donegal, agrees with me as to the importance of this point. He does not think that any variety except Champions could be purchased which would give satisfactory results as a main crop potato. He does not feel quite sure what variety should be introduced as an early potato to give food before the Champions come in.

The great bulk of the seed potato supply for Ireland has of late years been drawn from the Counties of Fife and Forfar. Consequently, new seed imported since 1880, the date of the first importation of seed on a large scale, has not been so great a change as if it had come from another locality.

This makes it desirable that if seed is purchased and distributed in certain districts in the spring of 1891, to require that, as far as possible—

i. The new seed shall be bought in fresh districts; and

ii. That, in purchasing seed in Scotland, special regard shall be had to the district for which it is required in Ireland.

I cannot lay too much stress on the importance of the latter point. During my inspection in Donegal, nothing seemed to be of greater importance to the more intelligent of the small farmers there than the great necessity of changing either from heavy clay or, preferably, light sandy dry soil, to peat or light moory land. This has in the past been outside of the control of the Boards of Guardians, as seed is usually supplied by one large contractor, who does not perhaps know what class of land it has been grown on, and who probably does not take any trouble to distinguish seed grown on one soil from that grown on another.

I would suggest that if advances are made by the Government in the future for purchase of seed oats or potatoes, it should be conditional that the seed purchased should come from a district approved of by a Government Inspector, who should be an expert thoroughly conversant with the whole of the potato trade, and who should make himself acquainted with the peculiarities of soil and climate of the district for which the seed is required. He would to some extent assist the Guardians and take responsibility off their shoulders by advising them as to the districts in which purchases should be made, and also by passing all seed potatoes purchased, which should be bought subject to his examination and inspection.

A great deal of harm has been done in many districts in Ireland by the Board of Guardians spending the money they borrowed in 1880 for the purchase of seed in buying local seed grown in the district and re-selling to the farmers. This seed, as good as could be got (often very bad), was of little use, with the natural result of loud complaints from the recipients of seed.

An example came under my notice in Glenties Union, in which a large sum—about 3,000 £.—was spent in seed bought through a London agent. The seed (potato), I was informed, looked very good on arrival, grew beautifully, flowered splendidly, looked a most magnificent growing crop, but when dug produced absolutely nothing. The seed was supposed to be "Imperial Regents." This is an example of Guardians, from want of trade experience, which only an expert or specialist can command, making a bad contract which turned out ruinous to the ratepayers.

I think that a Government inspector or expert should inquire into the causes which influence the Donegal small farmers in adhering so much to old varieties, such as "Lumpers," "Rocks," "Gawkies," &c., as against newly imported "Champions." This would apply to other districts.

The oat crop this year is so good that I do not think any loans need be granted for seed oats.

The "Champion" variety of potato is now grown almost universally over Ireland. It is an enormous cropper, and gives a large supply of small potatoes not good for sale or for eating, but of great use for feeding fowl and pigs. It possesses two disadvantages:—

- i. It is a very late potato, and consequently, when attacked by blight, has probably produced but a small growth at that period.
- ii. It will not keep well after March, after which it becomes a very bad eating potato.

Notwithstanding these defects the Champion is still the popular potato. Magnum Bonum is not so popular for three reasons:—

- i. They do not crop as heavy as the Champions.
- ii. They are not good to eat until spring.
- iii. They are usually in Ireland waxy and watery as compared with Champions.

It seems very desirable to produce a potato which could take the place of the Champion, now undoubtedly deteriorating. Why should not the model farm at Glasnevin experiment in this line?

There are many districts in which, doubtless, no special demand would be made for seed if none were supplied. But there would be a great liability of the farmers planting immature and badly grown seed which would produce bad results.

The total amount borrowed by Unions under the Seed Supply Act, 1880, was 598,306 £. 10 s. 9 d.; it would probably be correct to assume that fully one-fifth of this was spent in seed oats, leaving say, 478,645 £. 4 s. 7 d. spent in potatoes; probably these averaged 10 £ per ton, giving say, 47,864 tons of seed. Probably fully one-fourth of this was not spent to the best advantage, leaving say, 36,000 tons really required in 1880; assume that quantity to have been fairly required, probably not more than two-thirds of that at the outside would be required in 1891, say 24,000 tons; this at 5 £. per ton would be 120,000 £., as against nearly 600,000 £. in 1880.

(signed) *Thomas S. Porter.*

#### REPORT ON THE POTATO CROP IN THE COUNTY DONEGAL, BY MR. PORTER.

*Irish Land Commission, Agricultural Department,  
18 September 1890.*

I HAVE visited the Unions of Ballyshannon, Donegal, Glenties, Dunfashghy, and Milford, in the County Donegal, and I estimate that the amount of new seed

seed which should be introduced, if possible, next spring, is, as nearly as can at present be ascertained, as stated in the Memorandum attached hereto at page 7.

Generally speaking, the potato crop is good in all good land, such as will be found near Ballyshannon, Donegal Town, Dunfanaghy, portions of the coast line from Donegal to Killybegs, and all the good land on the eastern side of the County from Milford on the north to Stranorlar on the south.

In the good clay and limestone lands, and indeed in any fairly good tillage land, the blight, though almost universal, will not, I think, produce serious results. This opinion is well supported by the current market quotations in Stranorlar, Derry, &c.: potatoes ranging from 2s. 8d. to 3s. per cwt. It is absurd to suppose that anything approaching serious want of potatoes is anticipated, when potatoes are freely quoted at these prices.

On the other hand, in all the poor barren mountain and moory lands, and in all the shallow peaty lands lying along the west coast, the crop is very short, in fact, seriously so. I do not think I exaggerate at all the yield, when I say that I very much doubt if, over all that class of land, comprising the greater portion of Donegal, the yield will prove one-third of the usual crop, and that the feeding value will not be one-fourth of an average crop. By an average crop, I mean an average of the last eight years, and by feeding value, I mean the nutriment to be derived from the potato. In all the poorer lands referred to, the tubers are very small and unmaturing. And I cannot think that unmaturing tubers possess the same feeding value as fully grown tubers.

I commenced my inspection at Ballyshannon, and then travelled *via* Donegal, Dunkineely, Killybegs, Carrick, Ardara, Glenties, Dunglow, Gweedore, Falcarragh, Dunfanaghy, Creeslough, Kilmacrennan, Milford, and Rathmullan. I therefore passed through a great deal of bad land, and through some of the best land in West Donegal. I frequently stopped to examine the crop in the fields, and made inquiries from those whom I can depend on to give reliable information, and I believe I do not at all understate the case in saying that the crop will not average one-fourth of an ordinary crop in the poorest and worst lands, and possibly at the most one-third of a crop in West Donegal generally.

What struck me most was that the tubers were not diseased, but that they were very small, usually about the size of plums, seldom bigger than small apples.

In the poor mountain land, near Glenties, and in "the Rosses," the crop was very bad, probably barely one-fourth of an average. I cannot think that such small, badly-grown potatoes can be good for food.

It seems that in the mountain lands the people plant their potatoes very late, at the end of March and the beginning of April, and consequently the potato in such a moist cloudy climate has made but little growth at the time the blight sets in, about the end of July and early in August. The result is that when the blight is very bad, as in this season, the stalks are completely withered away before the tubers have grown to any size, and the potato plots present the appearance of masses of weeds.

As far as I could judge, most of the smaller occupiers have about one acre of potatoes in little divided patches. They are in the habit of growing potatoes and corn alternately, year after year, on the same land, the only variation being small patches of turnips and cabbages amongst the potatoes. This system very soon wears out the poor peaty land, and the people complain that, after the land has been cropped thus for a few years, the Champion variety does not produce good results. Indeed, the feeling on this subject is so strong in Glenties Union, which is, perhaps, the poorest in Donegal, embracing a huge area of poor land with very little good land, that there is a strong bias in favour of growing a local variety called "Gawkies," and another variety called "Lumpers" in preference to Champions.

The people say that on this shallow peaty soil the Champions, when the land is newly reclaimed, are first rate, but that after a few years they won't do at all. And in this year, particularly on such lands, they say that "Gawkies" have come out much safer.

The "Gawkies" (I spell the name as pronounced) are grown mainly in the

small peninsula of Loughros, on the west coast near Ardara. The land is here, I am informed, rather sandy, and potatoes from this locality make a good change to the peaty mountain lands.

In Glenties Union, generally, the people on the poor lands spoke disparagingly of the Champions. I frequently put the question, "Suppose that next spring you could buy Champions and "Gawkies" at the same price and equally good, which would you buy?" The answer was "Gawkies." I wish it to be clearly understood that this feeling against the Champion existed only as regards "Worn," *i.e.*, frequently cropped poor light peaty land. I never heard a second opinion as to Champions being best for good clayey land.

In Dunsfaghby Union intelligent men, whom I spoke to on the subject, also considered the Champion unsuited to poor mountain land. They, however, preferred "White Rocks" to "Gawkies."

In Milford Union it was believed that "White Rocks" were the best variety for worn lands.

I confess I was rather surprised at this information, but I took great care to make many inquiries on this point from intelligent respectable men.

What reason or justification there may be for this doubt as to the Champion for worn lands in Donegal, it is an alarming and serious state of affairs, as no other potato is at present forthcoming to replace it.

The farmer on poor land in Donegal will not, I think, touch Magnum Bonum, Regents, or sue's varieties.

I was informed that at Glenties, where the disease is very bad, there is one small field of the "Schoolmaster" variety producing an excellent crop, with badly-diseased potatoes all round.

In Glenties Union, in 1880, the Guardians imported 3,000 *l.* worth of Regents. These turned out an absolute failure. The seed looked first-rate, but produced nothing. They were delivered at Killybegs at 8 *l.* per ton.

The Dunsfaghby Union bought all its seed locally in 1880, buying in one district and transferring the seed to another.

It is quite erroneous to suppose that in Donegal the people do not change their seed. I believe that, relying so largely as they do on the potato, they change the seed very frequently; not getting altogether imported seed, but getting seed from a different district.

The oat crop in Donegal is very good. I would say that it is fully up to the average, if not above. At the time of my visit last week the people were cutting the oats all over Donegal, and I do not think that I heard on a single complaint as to the crop.

I would not anticipate any distress from want of food. Indian meal is largely used, is at present moderate in price, is delivered at all the little harbours round the coast at a freight of about 10 *s.* a ton; and, consequently, all over the poor districts round the west coast, Indian meal is not dearer than at inland towns having a railway freight of some 60 miles to pay.

Another consideration is that the women and girls earn each from 1 *s.* to 2 *s.* per week, knitting woollen goods, and some earn higher wages at superior classes of work.

I think there will be a great want of good potato seed next spring, and no doubt there will be a great scarcity of money, as the people will buy so largely Indian meal and flour to make up for the short crop of potatoes.

Roughly speaking, a line drawn from Donegal town to Milford would cut off all the district seriously affected by the potato blight in the county Donegal, which would lie to the west of that line.

Probably the worst district of all is from Stranorlar to Glenties—what is called the "Glen of Glenties," and the district of "The Rosses," north-west of Dunglow.

I spent a good deal of time examining the farms west of Ardara. On one small farm, handled rather better than most, I had some potatoes dug; they were bad, scabby, small, and diseased, hardly one-sixth of a fair crop.

It is to be recollected that a large number of the Donegal farmers hold small stocks of sheep on the mountains, and that they are not merely dragging out a hand-to-mouth existence on their little plots of arable land. The hay crop also is good, and fairly well saved.

I think the real difficulty to be met with is the spring supply of suitable seed potatoes.

(signed) Thomas S. Porter.

## MEMORANDUM (see Report, page 4, paragraph 1).

UNIONS.	Sum Borrowed in 1880.	Estimated Number of Tons Potato Seed Bought in 1880.	Estimated Number of Holdings supplied with seed in 1880.	Estimated Number of Holdings requiring Seed in 1891.	Estimated Number of Tons Potato Seed required in 1891.
	£.	Tons.			Tons.
Ballyshannon - - -	7,102	600	2,200	1,200	120
Dunegal - - -	3,298	120	1,600	1,000	150
Glenties - - -	3,000	400	2,100	2,000	375
Dunfanaghy - - -	2,545	200	1,200	1,200	180
Millfield - - -	7,867	400	2,200	1,500	225
Latterkenney - - -	2,000	Not visited; but I can estimate amount re- quired pretty fairly		1,600	170
Strawcarr - - -	1,000			1,200	180
TOTAL - - -	27,901	- - -	- - -	8,600	1,440

Value of seed in spring, 1891, estimated at 5 l. per ton:—

£ 7,200 expenditure for 1891, as against 27,991 l. expenditure in 1880.

# REPORT ON THE POTATO CROP IN THE COUNTIES OF GALWAY AND MAYO BY MR. EYRE. MR. PORTER'S INTRODUCTORY OBSERVATIONS.

Irish Land Commission,  
Agricultural Department, Dublin,  
18 September 1890.

HEREWITH I beg leave to enclose reports handed to me by Mr. Gregory Eyre upon the Unions of Galway, Clifden, and Oughterard, in the county Galway, and the Union of Westport, in the county Mayo.

From these reports I have drawn up the following estimate of the seed likely to be required in spring, 1891:—

UNIONS.	Sum Borrowed under Seed Act, October 1889	Estimate of Potatoes Bought in 1890.	Estimated Number of Holdings supplied with seed in 1890.	Estimated Number of Holdings requiring Seed in 1891.	Estimate of Potato Seed for 1891.
	£.	Tons.			Tons.
Galway - - -	5,650	600	4,000	2,000	300
Clifden - - -	3,087	250	4,000	3,000	450
Westport - - -	6,323	550	5,500	3,000	450
Oughterard - - -	4,038	400	4,000	2,500	375
TOTAL - - -	29,098	1,800	17,500	10,500	1,575

It must be borne in mind that my estimate of seed bought in 1880 is exclusive of seed supplied by the "Tuke," "Marlborough," "Land League," and other funds.

In order to make Mr. Eyre's report clear to you, I have attached thereto a list of the queries I gave him when he started, as a basis to work on. His reports are in reply to those queries.

You will observe that Mr. Eyre's estimate is that the crop is about one-third of an average all over.

The Champion is the favourite variety throughout the whole district.

It is very difficult in the Western Unions to arrive at correct figures from investigations, as everybody is disposed to magnify the result of the blight, and to endeavour to give as bad a description as possible of the state of the crop.

It may be taken, as a general rule, that one ton of seed (Champion) is sufficient for one Irish acre, and that an Irish acre of potatoes is enough for any ordinary family to live upon, and to afford a sufficient supply of spare potatoes for the farm, pigs, fowl, &c. This would refer only to those districts in which potatoes form a very large portion of the diet.

Judging from Mr. Eyre's report it would seem that the land all over the poorer district of Galway is boggy, or shallow, cold, and wet; and great care should be taken in getting seed from a district which will make a suitable change. I would imagine that for this district the seed should come from light sandy soil.

(signed) *Thomas S. Porter.*

## REPORT BY MR. THOMAS S. PORTER UPON PART OF THE COUNTY CORK.

### CORK UNION.

THE crops generally are very good; blight has appeared nearly everywhere, but it seems that there will notwithstanding be a fair crop of good potatoes, and I do not think the great bulk of the farmers in this union require special assistance in getting seed.

### MACROOM UNION.

The Champion is the almost universally grown variety; a small quantity of Flounders and Pinks are grown as early varieties.

The potato crop seems good in low-lying lands, such as the Lee Valley, where there is a good deep soil, but in the high and poor mountain lands the crop is not more than one third of an average. The great bulk of this Union would seem to consist of light mountain land. Where I examined the potato crop in such lands the yield was short and the potatoes small, about the size of plums; the tubers seemed sound but unmaturing. Farmers apparently change their seed pretty frequently, getting seed from different land and localities to their own.

In 1880 this Union bought really good Scotch seed from Cork firms; the seed was sold at 2 s. 6 d. per weight of 21 lbs., or 1 s. 8 d. per stone, which would equal 13 l. 6 s. 8 d. per ton.

Probably about 1,200 holdings got seed. All the loan of 3,877 l. 10 s. was spent in potatoes.

The average amount of seed distributed in 1880 would be about 6 cwt. per holding.

Flounders would probably be the best potatoes for early variety in this district.

My report on this Union not being completed, Mr. Doran will also report upon it.



## BANDON UNION.

Most of this Union seems very good land, and the farmers seem prosperous on fairly large farms.

Some reliable men to whom I spoke do not think the disease generally is as bad as reported in this Union. The disease is very bad near the coast, and for some eight or nine miles inland from the coast line, but it is not at all so bad further inland.

I spoke to several farmers from near the coast, who speak of the crop as being so bad as to be scarcely worth digging. They propose ploughing the land, picking what potatoes may turn up, and sowing at once with rape or some such crop.

Pinks are grown as an early variety. A large portion of the land in this Union, near the sea-coast, where the disease is worst, is very good potato and barley land. Very early potatoes can be grown, but blight set in so early this year that the crop is practically destroyed.

The potato crop is pretty fair, perhaps two-thirds of an ordinary crop, north of the Bandon River, but between the river and the sea it is a very poor crop.

I went through the potato market at Bandon, on 27th September. Potatoes of good size and quality were selling at 8d. per stone: these nearly all came from the district north of the river.

The farmers here, in the district most affected, are of a class who, I think, would not generally come under a Seed Supply Act, and this would appear to have been the case in 1880, as only 685 l. was borrowed.

I do not think this Union need be considered as one in which relief to any serious extent, as regards seed potatoes, will be required.

The oat crop is said to yield about three-quarters of an average, but this I only heard from farmers who would take a low view of the yield. There appears to be a large labouring class in this Union.

## CLONAKILTY UNION.

From reliable information, and my own observations whilst driving from Bandon to Clonakilty, it appears that along the coast fringe, extending to some eight miles inland, the potato crop in almost all cases is a total failure. I examined a number of fields, and I would say the yield was barely one-fourth of a crop, and what I saw were very small, unmaturing potatoes, the potato ridges being one mass of weeds. I did not see one decent crop of potatoes along the whole drive from Bandon to Clonakilty, after leaving the good land close to Bandon. The yield is reported to be very much better further north, where I did not go; it is said to be fully one-third to one-half of an average crop in the inland district, that is, after getting further inland than the coast fringe of about eight miles depth.

Potatoes of the best quality are now (27th September) being sold in Clonakilty town at 1 s. per stone; this is for the very best.

Potatoes are planted early in the district; nearly all are planted before St Patrick's Day.

In 1880 the Guardians distributed seed largely to small farmers and labourers. About one-half of those who got seed were labourers; the farmers, on whose land these labourers planted their seed gave security for the seed. The seed advances were paid up very well, only some 200 l. being now due.

Parts of this district in average seasons are exceptionally good for growing potatoes, especially near the coast in the district now suffering most. Potatoes can be planted very early, and, with care, dug in June. Some farmers inform me that Champions acquire an early habit after having been grown here for a few years. All this would seem to show that by early cultivation the potatoes could be grown and well matured before blight is at all likely to appear. The serious touch of blight all along this coast, from about Kinsale to Skibbereen, and thence round the south-west coast to Cork and Kerry, appears to have occurred about 19th June. About that date a heavy fog or mist hung about the coast fringe for some ten days, the weather was thundery, and the blight very soon showed itself, most fields of potatoes being at that time very far from anything approaching maturity.

It is plain that if potatoes can be planted very early here (and I understand that near the coast, where it is mild, some patches are planted at Christmas, and many plots from 1st February on), the potatoes might, with good cultivation, be well matured in June, and hence largely escape disease.

In 1880 the Guardians bought good Scotch seed potatoes; they also distributed oats and barley; probably about one-fifth of the money borrowed was spent in grain. The sum borrowed was 2,154 £; of this about 200 £ is still unpaid; but observe, as stated already, nearly half the recipients of seed potatoes were labourers without land, except their garden patches. Potato seed appears to have been distributed in somewhat the following quantities: farmers would average about 4 cwt. each, labourers about 2 cwt. each. The seed was bought at 11 £ per ton.

There are a good many dairy farmers in this Union, and a large amount of good grazing land. Many farmers let their cows to dairymen at 9 £ to 10 £ 10 s. for the season (present prices), the latter price for best cows is best land.

Seed potatoes will be badly required next spring.

Pinks as an early potato have greatly died out. Farmers change their seed pretty regularly about every two or three years, getting seed from other land, this has been a regular practice since 1880.

#### SKIBBEREEN UNION.

Potatoes seem very bad all along the coast fringe. General opinion, corroborated by my observation, would place the yield along the sea fringe of about seven miles from the coast at about a quarter of an average yield, and these are very small, unmatured tubers; in many cases the yield is practically nil, but I saw some very fair crops, and I think one-quarter represents the average yield.

In some cases I find very fair crops alongside wretched crops; this must be accounted for by difference of seed or cultivation. Good seed sown in fairly fresh ground, and well and early cultivated has done best.

I examined a large number of potato plots near Skibberreen myself, walking through the fields and digging the potatoes. On some labourers' plots which I went over the results were very variable, probably averaging one third.

I consider the crop along the sea-coast in places to be a total failure, and the average crop in the Union to be one-third. I do not think it could be more than one-third, perhaps less.

There is no doubt at all that there will be a great scarcity of seed potatoes of fair quality in spring of 1891. I do not think it would be at all wise for the people to plant local seed this year.

The labouring class here will be the worst off; it is very essential that they should be able to get fresh good seed on favourable terms; the labourers usually grow their potatoes on little conacre patches; generally well-wooded land; hence their crops are very bad, and they will probably eat the whole crop.

An early variety that will stand disease well is much wanted. Beauty of Hebrons are well spoken of in some cases; Regents bear a bad name; Pinks have greatly died out.

I fancy Beauty of Hebrons variety would do well to try on a largish scale here as an early variety.

#### DUNMANWAY UNION.

I am informed that the crop generally over Dunmanway Union is between half and two-thirds of a crop. I have doubts as to whether this is not an over-estimate. I fancy half a crop is the outside figure. I merely saw the southern portion of the Union.

It is considered by reliable men—(a) that seed must be distributed in spring of 1891, as was done in 1880; (b) that labourers must get seed; (c) that the labourers are just as good security as the farmers, as regards repayment of seed advances; (d) that at least 3 cwt. of seed should be supplied. It is thought that the people cut their sets too small, and consequently seriously damage the seed, and the sets do not produce a full crop.

I had

I had intended to visit the northern part of this Union, but I was unable to do so before returning to Dublin. Mr. Doran will visit this portion.

In the south-west portion of the Union which I drove through, I would say the crop of potatoes is certainly not more than one-third of an average.

#### BANTRY UNION.

This Union spent 1,355 £ in potatoes in 1880, bought a large lot of Scotch Champions, also some Rocks; imported seed cost about 11 £ per ton.

Seed was distributed 1 cwt., 2 cwt., and 4 cwt. to different classes of holdings; the local Guardian gave an order for the amount of seed required.

The worst district of Bantry Union is that of Sheep Head peninsula. The crop in the rest of the Union is reported as about half an average crop. In the portion of Bantry Union which I drove over, going from Dumanaway to Bantry, the crop is very bad. I carried a spade on the car, and dug the fields repeatedly, digging exactly where I liked myself, and I do not think the crop could be more than one-fourth of an average crop; it was very bad; the tubers were very small; near Bantry the crops looked better, and within about one-and-a-half miles of Bantry the potato fields improved marvellously. I there dug as good, sound, large potatoes as I would care to see in any year, and the crop was most satisfactory in many instances. I cannot account for this, as the land in some cases was not nearly so good as in fields I had passed where there was almost nothing.

A great deal of money comes into the district from the tourist traffic, and the railway extension to Bantry Bay will provide a good deal of work.

There will, undoubtedly, be distress in Sheep Head peninsula. It is doubted whether the potato supply in Sheep Head peninsula will last much over Christmas.

#### SCHULL UNION.

I did not visit this Union, as the information I received at Skibbereen and Bantry satisfied me that the blight produced very bad results, and that at the very outside there is not more than one-third of a crop. Mr. Bird, land agent, who has just been in Schull district, reports the prospect as very gloomy, and fears all the available supply will soon be eaten up. Mr. Beecher also reports the prospect as very bad. Mr. Bird told me that he had grave doubts as to whether the supply of potatoes for food would last more than a month or six weeks in some of the worst parts.

#### CASTLETOWN-BERE UNION.

The potato crop generally throughout this Union is very bad: I do not recollect seeing a good crop anywhere. It probably would not exceed one-fourth of an average crop. The poorest district appears to be that of Adrigole. About here there are a number of very small occupiers, who have very inferior houses and small patches of bad land, and, as far as I can judge, both by observation and from what I learnt in the neighbourhood, it is a very thickly populated district, taking into consideration the quality of the soil. The road from Glengarriff to Castletown passes through the district of Adrigole. The poor district commences just west of Glengarriff, and continues right along the coast to about Hungry Hill. I am informed that the people from here are accustomed to go to Wales for work. Their only other occupation seems to be dredging for sand, which is sold for manure, mainly about Bantry. They do not appear to take any part in fishing, and, both from what I learnt from residents in the district and from my conversations with the people as I drove along, I come to the conclusion that they were a particularly indolent people, without a trace of energy. It seems difficult otherwise to account for their making no use of the advantages which are open to them in fishing, as is done in the Kenmare River district. I had the opportunity of seeing the Rev. Mr. Carey, the incumbent of Glengarriff; Mr. Handcock, the manager of the bank at Castletown; the Rev. Mr. Larkin, the parish priest of Eyries. Several efforts have been made to induce the people about Castletown to take to fishing, but although some gentlemen purchased boats and every necessary appliance, their efforts resulted in failure. From Castletown to Eyries and Ardroom, the people appear to be in a better

position; a considerable amount of fishing takes place all along the Kenmare River, from Dursey Island to Ardgroom, and a large amount of fishing is done by inshore boats, yawls which can be had for a moderate outlay of 10*l.* to 12*l.*; the nets costing 25*s.* each, extra. Those who have been employed at the inshore fishing have done very well during the past season, and the rapid increase in the mackerel curing business, which is mainly for the American market, has brought a large amount of money into this neighbourhood, so that, notwithstanding the failure of the potato crop, I do not think it can be said that the people are in worse circumstances than usual.

The varieties of potatoes grown appear to be Flounders for early use, and Champions for the main crop. I think a change of seed in spring will be essential, as very little of the crop dug this year will have come to maturity. I am informed that when the mackerel boats come in, wages range from 2*s.* to 3*s.* per head, every man, woman, and child who is available being employed in curing.

## MR. EYRE'S REPORT.

### *Instructions to Mr. G. Eyre.*

1. Ascertain the total amount of potato seed purchased in each Union under the Seed Supply Act, 1880.
2. Ascertain as regards seed so bought and distributed:—
  - a. How many distinct holdings got seed.
  - b. Average amount of seed supplied to each holding.
  - c. Largest amount supplied to one holding.
  - d. Smallest amount supplied to one holding.
  - e. How was the seed purchased; that is, was it bought by the Guardians in the market, or on commission, or supplied by tender?
  - f. Was the seed Scotch, or English, or Irish; and what precautions were taken to know where it came from?
3. What system was adopted with regard to local distribution of seed to insure seed being supplied to proper persons?
4. Has much seed been introduced since 1880 by private charity, such as "Tuke" or "Marlborough" Funds?
5. Has much seed been imported from Scotland during the last few years?
6. Is Champion seed universally used, or are there any other kinds much used? What do you recommend as most suited for the locality, and likely to be accepted by the farmers?
7. Ascertain from any persons whose information you would consider thoroughly reliable, everything you can gather on the foregoing subjects?
8. Ascertain as correctly as possible to what extent potato blight has affected—
  - (1.) The crop of eating potatoes.
  - (2.) The crop available for seed in spring 1891.
9. Specify, if necessary, those districts in which you think there will be absolutely a want of food; also those in which there will not be a sufficient supply of sound potatoes for seed in 1891.

*Note.*—Where replies are numbered and lettered they refer to the questions set forth in the instructions given to Mr. Eyre, printed on this page.

### GALWAY UNION (WESTERN DIVISION).

1. Amount of seed loan borrowed in 1880 for whole Union was 5,650*l.* I could not ascertain how much of this was expended in potatoes, and how much in grain.
2. a. Neither could I get the number of holdings which got seed.
- b. According

- b. According to poor law valuation, holdings at and under 4 *l.* got from one bag to two bags of 16 stones; 4 *l.* to 10 *l.* valuation got from three bags to four bags; and from 10 *l.* to 15 *l.* from four to six bags.
- c. About 90 stones.
- d. About 10 stones.
- e. Principally supplied by tender through local merchants. Some seed was bought in the open market.
- f. Nearly all Scotch.
- g. Very good seed.

3. The Guardian of each Division took charge of the distribution: the Relieving Officers also took an active part in it; every small holding in the Union got seed.

4. Yes, a good deal. Mr. Take and Sir Thomas Brady were the principal donors, especially along the coast and the poor quarters.

6. The Champion is the only seed sown latterly, and all the people say it is the best for that country, an opinion which I thoroughly agree to.

8. In that part of the Union which I inspected I found the crop very poor indeed. It is principally a mountain district; the soil is cold and wet on a retentive subsoil. The crop, as a rule, had not time to mature properly before the blight attacked it. There is hardly a trace of any of the stalks left now, except in cases where very late sowing took place; there are no good potatoes at all under these late plants. There is about half a crop all round, and half of these are quite gone, not even fit for pigs. I am afraid there is no seed available for next year. Every other crop, such as oats and rye, are fair enough, but do not amount to much. Turf, also, in this district is very bad. A good spell of fine weather, even now, would do a good deal to help the poorer classes to tide over the winter.

#### DOUGHTYARD UNION.

1. Amount of seed loan, 1880, 4,338 *l.* Bought 400 tons at 10 *l.* 10 *s.*

2. a. Every holding in the Union under 15 *l.* poor law valuation got seed.

b. Under 4 *l.* valuation got 1 bag or 16 stones. Between 4 *l.* and 10 *l.* got 2½ bags. And 10 *l.* to 15 *l.* valuation got from 4 to 6 bags.

c. About 90 to 100 stones.

d. From 4 stones up.

e. All the seed in this Union was got through Mc'Kenzie, of Dublin, from Scotland.

f. All Scotch.

g. Seed could not be better

3. The Clerk of the Union conducted the distribution all over the Union; he employed men, good men, at one guinea a day, at different centres, to serve it out.

4. A good deal of seed has been got into the Union since 1880 by the Take Fund; also by Sir T. Brady. And in Carna, E.D., one of the poorest parts of Connemara, Mr. Balfour sent a boat-load of 40 tons in 1887, which seed has done a great amount of good, and I saw some very good samples along that part of the coast where this seed was sown, whereas in the vicinity where the people got none of it they have little or no crop.

6. The Champion is the only potato thought anything about back here.

8. (1.) Having travelled nearly all over this Union, I came to the conclusion that there is not quite half a crop and more than a third average.

Some places I got very fair samples and others no good tubers at all. I would recommend a complete change of seed for this Union.

(2.) There won't be any seed available for 1891 unless the people get some substitute for the few potatoes they have to eat during the winter.

9, I cannot say, just yet, that I saw any immediate signs of want of food. Until the crop is dug out it is very hard to judge. But I can plainly see that there will in all the backward districts of this Union be a considerable piece during the winter. I noticed that the few remaining tubers are taking the disease very quickly, especially the low, wet, moory lands; by the sea shore, where they have an ample supply of white manuring sand, and seaweed, the tubers are standing better.

#### CLIFDEN UNION.

1. Amount of potato seed loan, 1880, 4,000 *l*.
2. *a* About 4,000 distinct holdings got seed.
  - b*. From 2 to 6 bags, according to valuation.
  - c*. 6 bags of 16 stones each.
  - d*. 2 bags of 16 stones each.
  - e* Principally got by tender from Scotland.
  - f*. From Scotland.
  - g*. The seed was, as a rule, very good, but some counterfeit seed got in also.
3. The Guardians and Relieving Officers saw after the distribution.
4. A great amount of seed has been introduced into this Union since 1880; in fact, every agricultural holding got a full supply of seed twice in the last ten years.

Mr. Tuke in 1887 sent 250 tons of seed to this part of the Union.

5. A good deal, off and on.
6. No other seed any good for this country except the Champion.
8. The whole of this Union is more or less attacked with the blight. I saw a great many samples, but did not come across any field that had not some black potatoes. I think the coast line is the worst, especially in the districts of Bunven, Salerna, Boffin, Renvyle. I daresay one-third of a crop all over the Union would be very near the mark. The Islands are the worst, and always are. There are close on 5,000 holdings in this Union; of that, only 110 are above 20 *l*. valuation. The people otherwise are fairly well off, as the oat crop is splendid, also rye.

(2.) There will be a great scarcity of seed for next spring.

9. Except the Islands, I am of opinion that the people will get through the winter fairly well.

#### WESTPORT UNION.

1. Amount of seed loan, 6,000 *l*.
2. *a*. to *d*. No information.
  - c*. Principally by tender, also on commission.
  - f*. Most of it Scotch, but being late in the year, some local seed was purchased.
  - g*. It was good seed.
3. The Guardians and Relieving Officers were the principal distributors.
4. A great deal of seed has been given by private funds since, such as Tuke, Marlborough, and the "Manchester Guardian" Fund.
5. A good deal came from Scotland up to 1886.
- 6 Nothing but Champion used. The people all agree it is the best for this climate.

## REPORT BY MR GREGORY EYRE

UPON THE POTATO CROP IN THE COUNTIES OF MAYO, CLARE, SLIGO,  
AND GALWAY.GENERAL REPORT OF THE POTATO CROP IN THE COUNTY  
OF MAYO.

THERE are eight Unions in this County, comprising Ballina, Ballinrobe, Belmullet, Castlebar, Claremorris, Killala, Swineford, and Westport.

Of the above, Swineford is by far the worst; then would come Westport and Belmullet; then Ballina, Claremorris, and Killala could be classed together; Castlebar and Ballinrobe are the best.

All the western and sea-board districts of Mayo have suffered very much from the wet year. The land is all mountainous, very good for potato culture in a dry year, but the reverse in a year like the present. Swineford Union is situated in the heart of the County, and is much the poorest union in Ireland. The population is very dense and the holdings small, there being about 4,646 holdings at and under 4 *l.* poor law valuation out of a total of nearly 7,500, as will be seen by my special report. The potato crop is a great failure in this district, every one of the holdings I believe will require help towards getting seed next spring. It is very hard to make anything like an accurate estimate of the crop available in this county at present, as it may turn out far worse than is even now anticipated; however, from personal observations and from numerous inquiries, I venture to give the following:

Ballina	-	-	-	-	33 per cent.
Ballinrobe	-	-	-	-	55 "
Belmullet	-	-	-	-	25 "
Castlebar	-	-	-	-	40 "
Claremorris	-	-	-	-	35 "
Killala	-	-	-	-	33 "
Swineford	-	-	-	-	20 "
Westport	-	-	-	-	27½ "

I may be under the mark in some of the Unions and a little over in others; but, on the whole, I am of opinion that the above will turn out to be nearly the proper estimate when the crop is dug out.

The County of Mayo was the largest applicant for seed in 1880. Nearly every holding got it up to 10 *l.* poor law valuation, and a good many to 15 *l.* It was a great boon to the poorer districts, as a change of seed is an unheard-of thing in the backward places unless some failure like the present takes place. The Champion was the only seed imported, except in a few instances *Magnum Bonum*, which did not turn out well. Some *Roofs* and *Skerries* were also tried with a like result. A great quantity of new seed will be required for next spring, and I am sure the people will, in most instances, be only too glad to pay for it; but until the Mayo people are taught to depend less on the potato crop there will be periodical famines, as the soil they are in the habit of tilling is sick from continual cropping of potatoes.

## SWINEFORD.

Total amount of seed loan, 27,261 *l.*

There are nearly 7,500 holdings in this Union; of these about 4,646 are at or under 4 *l.* Poor Law Valuation. The population of the whole Union is 54,000, and the valuation, 41,000 *l.* There are 10,640 acres of potatoes sown in the Union.

8,500 holdings got seed in 1880. Nearly all the loan was expended in potatoes, as oats is not so much grown.

It would be difficult to describe the poverty of this union, and how they will get over this winter, I cannot say; anyhow, from observations I made,

and inquiries, I am of opinion that 8,000 holdings will require seed again next spring.

I saw the worst cases of blight yet in and about the town of Swineford, which is not nearly the poorest part of the Union.

In this Union they would require from 30 to 40 stones of potatoes to each holding.

There is over 6,000 *l.* of the seed loan due still.

#### BELMULLET UNION.

Total amount of seed loan in 1880, 5,114 *l.*

There are about 3,700 holdings in this Union; of these 3,428 holdings got seed, including town plots.

A great deal of the seed got was purchased within the Union, on account of the short time there was for planting and getting it; the potatoes did not do well at all afterwards.

The people in this Union have got from time to time, since, a great deal of help in the way of fresh seed from the Marlboro' and the Tuke Funds, and from the late Mr. Forster.

There will not be any seed available for next spring. The county is very poor and the soil very wet and cold. At the present time there are parties who have no potatoes left, and it is believed there will not be many potatoes after Christmas.

At least 3,000 holdings will require seed next spring.

#### KILLALA UNION.

About of seed loan, 1880, 2,602 *l.*

About 1,500 *l.* was expended on potatoes; 1,266 holdings got seed.

Potatoes were very good, mostly all of which came from Scotland. The seed gave great satisfaction. The crop in this Union is not nearly so bad as Belmullet; there are some very poor divisions by the coast where there is not more than one-quarter of an average crop; the inland portion is much better off. There is a good half crop wherever the soil is new and in clay land, but the mountain divisions are very bad. It is estimated that about 1,000 holdings would require seed.

The other crops in this Union are very good.

#### CLARENORRIS UNION.

1. Seed loan of above Union was 11,653 *l.*; of this 8,000 *l.* was expended in potatoes.

2. (a.) About 4,500 distinct holdings got seed. A great many of these were town plots.

(b.) The average each holding got would be about two bags or 32 stones, viz., 4 cwt.

(c.) The best any holding got was 5 bags of 16 stones, viz., 10 cwt.

(d.) The least given was 1 bag, viz., 2 cwt.

(e.) All the seed in this Union was got by tender through M'Kenzie, of Dublin.

(f.) It was all Scotch seed, and turned out as well as expected, good.

3. The Guardians themselves were the principal people concerned in the distribution, and saw after it. Everyone who asked for it under 15 *l.* valuation got it.

4. No other seed has been distributed in this Union since 1880. The Champion is the only potato used.

#### *General Report of Condition of the Potato Crop in this Union.*

A large seed loan (11,600 *l.*) was obtained in this Union in 1880. It certainly did an immense amount of good, and ever since 1880 there were splendid results in all parts of the Union, and no grumbling at having to pay an increased rate. There is about 900 *l.* out still. The crop this year is very bad compared with



with last year. There are 16 Divisions in all. There is not more than half a crop in six of these. In four Divisions about one-third, in the balance about one-quarter of a crop. I would say that next year seed would be required for about 2,500 holdings.

The oat crop is good.

The Master of Union cannot get sufficient good potatoes for the inmates at present.

Average poor rate, 1 s. 4 d.

#### BALLINROBE UNION.

1. Seed loan of above Union was 10,451 l.; of this about 7,000 l. was expended in potatoes.

2. (a.) Could not ascertain how many distinct holdings got seed in 1880.

(b.) The average amount given would be about two bags.

(c.) and (d.) From one to five bags of 16 stones.

(e.) Seed got from Scotland by M'Kenzie.

(f.) It was all the very best Scotch Champion seed.

3. The Guardian of each Division and the Relieving Officers distributed.

4. No other seed has been imported into this Union since 1880.

#### *General Remarks as to the State of the Crops, &c., in Ballinrobe Union.*

This is about the best-off Union of any in the West of Ireland. There is not nearly so large a number of small holders. The only poverty there is, is in the few mountain Divisions; a couple of these are in county Galway. About 1,000 small holdings would be the outside of what would require seed next spring. The land, as a rule, is a great deal better throughout this union, and the people better off. Parts of where I drove through there were as good potatoes nearly as any year, and the blight has not attacked the tubers at all as yet.

Average poor rate, 1 s. 2 d.

#### WESTPORT UNION AND NEWPORT UNION COMBINED.

Total amount of loan under Seed Act, 8,646 l. Of this about 6,000 l. was spent on potato seed.

Seed was got through M'Kenzie, of Dublin, and turned out of the very best description. All of it came from Scotland. A good deal of seed has been given out in this Union since by different parties, such as Mr. Tuke, Sir T. Brady, &c. The champion is the favourite down here, and, in fact, along the coast the people do not themselves know of any other seed that would thrive there.

I find the blight to be general all over this Union, especially in the numerous islands. The crop is almost a total failure in some districts, the potato grew to no size, and is quite unfit for human use. In some of the better districts there are fair specimens, but a great many of the fair-sized tubers were greatly affected by the blight, especially where they were any way thick in the ground.

#### ACHILL PORTION.

This is by far the worst district I was in belonging to Newport Union. There are 1,500 families living in this island; the potato crop was the principal means of support. There is about one-third of a poor crop, which will not bring the people into the new year. There will not be any seed available, for, if they did not use the few potatoes they have, it would not be advisable to plant them again.

To sum up, in the whole of the Westport Union, there would be about 3,500 or 4,000 holdings requiring seed next spring.

## COUNTY CLARE (EIGHT UNIONS).

BALLYVAUGHAN, COROFIN, ENNIS, ENNISTYMON, KILLADYSERT, KILRUSH, SCARIFF, AND TULLA.

The Western Division of County Clare, comprising the five Unions of Ballyvaughan, Corofin, Ennistymon, Kilrush, and Killadysert, may be taken, as far as the potato blight is concerned, as pretty much in the same predicament. The soil is very much of the same quality, that is, where the crops are grown. It is not a tillage country, and the potato is cultivated nearly entirely in what is called black ground, or reclaimed moor and mountain. Taking one union with another I think a very fair estimate of the crop at present would be about one third. Of course it is a good deal less in a few exceptionally bad spots, and better in others.

The Eastern Division is much better off, being principally all a limestone country; that comprises the remaining unions of Ennis, Tulla, and Scariff. The soil all round is much better. Of course, the crop is very short of other years, as Clare is counted an exceptionally good country for the potato.

The people in this county are not depending nearly so much on the crop as others along the West Coast of Ireland.

In this part there are also a few districts, principally mountain, which have suffered very much by the blight. I would say that there is certainly from one-half to one-third of a crop.

To sum up on the whole county, I am of opinion that Kilrush is by far the worst Union.

Part of Killadysert is very bad.

Ennistymon is badly off also.

Ennis is not so bad.

Tulla, Scariff, Ballyvaughan, have about half an average crop.

Corofin is a poor country, about one-third of a crop.

## GENERAL REPORT OF THE POTATO CROP IN COUNTY SLIGO.

The Unions comprise Sligo, Tubbercurry, Dromore West, and the part of the Boyle Union situated in this county.

I may say that the entire County is pretty badly affected by the disease. There are a few good districts in stiff clay lands close to Ballymote, Sligo, &c., which have escaped fairly well, but in the congested portions the disease is certainly very bad.

The Union of Tubbercurry is the worst; the people attribute most of the damage done to the exceptionally late frosts in the early part of June.

The tillage is nearly all in the very worst of the land; bog or mountain is the favourite spot with the tenants to plant potatoes.

The Sligo part of the Boyle Union is also in a poor way.

There were some Rocks and Skerries tried in this County in 1880, which did fairly well, especially the latter, but they were allowed to die out gradually in favour of the Champion. Most of the seed was Scotch, and was got through merchants in Dublin, Glasgow, and Sligo.

*Seed Loan, 1880.*

1. About 20,000 *l.* was expended on potatoes alone in seed in the whole county.

2. (a) About 7,500 holdings got seed. A great many small town plots are included in this figure.

(b.) The average given would be about 3 cwt.

(c.) and (d.) Some got as much as 12 cwt.; some as low as 1 cwt.

All the seeds turned out very well, except when it was sown too late.

3. The Clerks of the Unions were the principal distributors, when employed men under them.

Seed

Seed will be wanted for next spring for about 6,000 holdings, which will require, on an average, about 3 cwt. each.

I would strongly recommend that more than one variety of seed be distributed.

#### DROMORE WEST.

Amount of seed loan, 1880, 6,862 *l*.

£.4,260 was expended on potatoes.

There are about 2,700 holdings in the Union.

About 2,000 holdings got seed.

The seed was all got from Glasgow, and was very good.

This is a much better-looking union than the Mayo ones, but I saw some very bad potatoes even in good clay land. There is a good deal of bad land along the coast and poor tenants; from inquiries it would seem there is not more than a third of an average crop in this Union.

I am of opinion that fully 1,500 holdings will require seed next spring.

#### SLIGO UNION.

Amount of loan, 1880 6,500 *l*.

About 4,500 *l*. was expended in potatoes.

There are about 6,000 holdings in this Union.

About 3,000 got seed.

Seed was got principally through Sligo merchants from Scotland, and was a great success.

There are a great many very poor Divisions in this Union, principally mountain parts.

I understand that in some places the crop is a complete failure; in a few good clay districts there is half a crop, but the tubers are barely fit for human consumption.

It is counted a much worse year than 1880, and quite as many (3,000) will require seed again.

#### BOYLE (SLIGO PART OF IT).

There are about 2,000 holdings under 15 *l*. valuation in the Sligo division of the above Union. They are all on a low bog or high mountain land, and consequently suffered very much from the blight. I could not ascertain how much of the loan of 8,000 *l*. for whole union was expended in the Sligo portion, but I fancy about half of it. There is not more than one-fourth of a crop in this part available either for eating or seed, the tubers are so small and soft it would be most unwise to sow them. I should say about 1,500 holdings would require seed next spring.

#### TUBBERCURRY UNION.

Amount of loan, 1880, 9,400 *l*.

£.6,000 expended in potato seed.

There are 4,500 holdings in the Union. Nearly 4,000 holdings got seed. The seed came from Cross & Sons, Glasgow, nearly all Champion. There were also some Skerries and White Rocks. The skerries did very well.

There is a complete failure of the crop this year. It has not been so bad since 1846.

There will not be any seed available for next spring; the people in some backward districts are living on meal already. In consequence of the late frosts in May, all the stalks were cut down.

Between 3,000 and 4,000 holdings will require assistance. I would recommend other sorts of seed to be imported.

### GENERAL REPORT OF THE POTATO CROP IN THE COUNTY OF GALWAY.

There are ten Unions in this County, comprising Galway, Oughterard, Clifden, in the West; Ballinasloe, Portumna, Mountbellew, in the east; Gort and Loughrea, in the South; Tuam and Glennamaddy, in the North.

Of the above, the first three or Western Unions, are by far the worst off;

Tuam and Glennamaddy come next; Mountbellew and Loughrea next; the remaining ones of Ballinasloe, Portumna, and Gort are the best off.

The Western part of this County is naturally the worst, as the land, especially where the population is thickest, is of poor quality; but wherever the real limestone comes in, the blight has not been nearly so severe.

There are parts of the Tuam, Glennamaddy, Mountbellew, and Loughrea Unions very much congested also, especially in the mountain and boggy Divisions which suffered; but in the good land, and where care was taken to cultivate decently the potato crop is not a bad one at all, but the people in these parts are not depending on that crop to any great degree.

I may say that I know fairly well every district in the county, and from inquiries made from the principal inhabitants, and from observations that came under my own notice as to quality of land, and the character the district bore in the past with regard to the potato crop, I would say that the following calculations—that is, in or about—would be nearly a correct estimate of the crop this year:—

Ballinasloe	-	-	-	-	-	-	55 per cent.
Clifden	-	-	-	-	-	-	25 "
Galway	-	-	-	-	-	-	30 "
Glennamaddy	-	-	-	-	-	-	35 "
Gort	-	-	-	-	-	-	50 "
Loughrea	-	-	-	-	-	-	37½ "
Mountbellew	-	-	-	-	-	-	40 "
Oughterard	-	-	-	-	-	-	30 "
Portumna	-	-	-	-	-	-	50 "
Tuam	-	-	-	-	-	-	33 "

Of course it is next to impossible to make any sort of a true estimate until all the tubers have been dug out. I have seen very fair samples in one field, while in the field adjoining the disease was very bad.

With regard to the seed loan of 1880, nearly every holding in the county up to 10 *l.* Poor Law valuation took advantage of it. However, the crop having turned out so well nearly every year since that, by degrees, it was paid off, except in a few poor Unions.

The seed was principally got from Scotland, and was mostly Champion variety. There were other sorts got, such as Rocks and Skerries, but they did not do so well. I am confident that seed will be required again next spring, and the people would be only too delighted to pay for it in reasonable time. There will not be any good seed available in the congested districts, and if there was, it would be very unwise to plant it.

#### SUMMARY OF REPORT OF THE POTATO CROP IN THE WEST OF IRELAND (SLIGO, MAYO, GALWAY, AND CLARE COUNTIES).

It is generally supposed that the potato crop has suffered more along the Western seaboard than in any other part of Ireland, and especially in the four counties named. No doubt there is more heard about the failure in these districts, for it is all what may be termed as congested, and the people have to look more to that crop as a means of subsistence through the winter than, I suppose, in any other part of the world. Naturally, therefore, having the thoughts of the great failure of 1846 and 1847 in their mind's eye, they feel greatly alarmed at even a partial failure any year since.

There is no doubt the potato crop is a failure in these counties this year. It would be very difficult to state what amount of the crop will be saved; but there is one thing certain, that the tubers are very inferior for eating, and I should say totally unfit for planting next spring.

There are very good districts in all the four counties I mention, but they are the Eastern Divisions, where the soil is much better and the limestone abounds. In these parts the population is in no way congested, and the people not depending so much on the crop; but in the Western Divisions and congested parts, and where the land is sick of cropping year after year, the failure is complete.

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It is not an uncommon practice for these people to sow potatoes three and four years in succession, for the soil is light and poor, and the supply of manure often very limited, so it takes a couple of years' manuring to produce anything of a crop.

The Eastern side of Clare is the best off of any district I was in, chiefly owing to the great quantity of limestone and a better system of tilling. Kilrush Union is far the worst off in county Clare. The population is thicker, and the people much poorer. The land is heavy and wet. I saw as bad potatoes in this union as any union I was in, except Achil' and Swineford. I do not think there will be any seed available at all for next year. The champions did very well here until this year. There were a couple of hundred tons of other varieties got in 1880, including American seed, which was a complete failure.

There are no potatoes of any account in the Islands along the coast of Galway and Mayo. I was not in the Arran Islands, but I heard they were not so bad as usual this year, as these Islands are all a bare limestone rock and sand. At the outside calculation, I believe, in these four counties, taking good and bad districts together, there would be about one-third of an average crop. In a few instances there are as good potatoes as any year, but this I cannot account for.

All the inhabitants are most anxious to get a change of seed, and are most willing to pay for same. A great many would pay down for it, the rest on easy terms. I do not think there is any reason for a cry of famine. No doubt in some of the very remote districts the pinch will be felt early next year. They are buying Indian meal in large quantities at present in some unions.

I am of opinion that other kinds of seed should be imported as well as the Champion.

(signed) *W. G. Eyre.*

October 1890.

#### MR. HEADECH'S REPORTS.

##### UNIONS OF GOREY, ENNISCORTHY, AND WEXFORD.

In pursuance of your instructions, I have inspected the potato crop in the Unions of Gorey, Enniscorthy, and Wexford, and annex hereto my report on each union.

I have endeavoured to obtain as much reliable information as possible from Clerks of Unions, farmers, and merchants in the seed trade. In addition to this, I have driven through these Electoral Divisions coloured on map, and examined the crop. I am happy to be able to state that I have found the potato crop, as far as I have gone in county Wexford, much better than I expected.

Even the farmers themselves admit that the main crop has turned out much better than they anticipated.

Wexford does not seem to have suffered from the blight on the sea-coast as other counties have done; in fact, the best crop I saw in the county was in Barony of Forth, quite close to the sea, on a sandy loam.

(signed) *J. R. Headech.*

25 October 1890.

##### GOREY UNION.

In the Electoral Divisions of Kilgorman, Courtown, Ardamine, Ballygarret, Cahore Ford, and Killineecoly, the soil is stiff cold clay. There is very little tillage in these divisions; nearly all in grass. The few potatoes which were planted are a bad crop. The tubers are small, and not matured; the tubers which were blighted are nearly all rotten. I do not consider there is more than one-third of an average crop in these divisions. I do not consider any potatoes grown in these Divisions would be seed to rely on for next year's crop.

In the other divisions which I drove through the soil is dry and sharp; the potatoes are as a rule sound (very few diseased ones), but many of the tubers are small. I would say two-thirds of an average crop, suitable for consumption or seed.

In all cases I found where potatoes were planted early in March they were by far the best crop.

Champion is the main crop. A few Flounders are sown for early use. As far as I can learn from farmers, they frequently change seed; all agree that this year the new seed is no better than the old.

A total change of seed would be beneficial to all Counties; as far as I can judge, the farmers in Gorey Union are able to buy fresh seed if they wish to do so, but the question is, where are they to get it? Certainly not from local seed merchants. I believe myself that for every 10 tons of potatoes sold as Scotch seed, not 3 tons grew in Scotland.

Potatoes are selling in market at 3 s. and 3 s. 6 d. per cwt.

I understand that 281 barrels of potatoes were distributed in spring of 1881 to farmers under 15 l. valuation. No man got more than one barrel. The seed was imported direct from Scotland. The seed was distributed on an order from the Guardian of Division, signed by Poor rate Collector.

No other seed distributed in the Union.

(signed) *J. R. Headech.*

#### ENNISCORTHY UNION.

In the Northern Divisions the soil is dry, and the potato crop fairly sound (very few diseased tubers). As regards number of sound potatoes, the crop is equal to average of last four years; but many of the tubers are small, and not matured.

I would say there will be two-thirds crop, suitable for food and seed.

The Southern Divisions generally are cold, stiff clay, nearly all in grass. The few potatoes sown are much blighted and small, bad for eating, and not to be relied on for seed; but the area under potatoes is small. About one-third crop in these Divisions. These farmers will have no difficulty in getting any seed they require in Enniscorthy market, where good eating are now selling at 3 s. 4 d. per cwt.

The Champion is the general crop, but Scotch regents are much sown around the town, and are approved of. In several fields I saw them being dug, and they were much better than the Champions in same field.

This I attribute to the fact that they form bulks earlier than champion, which is a late grower. In all cases I found the potatoes planted early the best crop.

Farmers do not, as a rule, in this neighbourhood, change seed as often as in Gorey or Wexford. Some men told me they had the same seed for seven or eight years, and they did well till this year, and this they attribute to the early blight.

The same remarks as to change of seeds in the Gorey Union are applicable here also.

I was informed that all potatoes distributed under Seed Act, 1880, were purchased in the local market, which turned out badly, and much of which has not been paid for.

All the seed distributed was home-grown Wexford seed.

(signed) *J. R. Headech.*

#### WEXFORD UNION.

In the eastern and southern Divisions in this Union, the potato crop varies a good deal; in this way, on light friable or sandy loam the crop is fully two thirds (and in some places more) of an average crop, but in these you sometimes come across low-lying badly tilled fields with not more than one-third crop, but this is the exception. In the whole of the Division marked red, I consider there is fully two thirds of an average crop of sound potatoes suitable for food or seed.

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In the Electoral Divisions of Glyn, part of Kellurin, Kilbride, and Forth, are stiff clay, now nearly all in grass, the few patches of potatoes planted are bad; most of the crop was diseased, and now rotten; the remaining sound tubers are small and not matured.

In Divisions of Newcastle, Rathspick, part of Aughwilliam, and Bridgetown, the soil is cold semi-mountain; there is not much diseased potatoes, but the tubers are small and badly matured.

In these divisions, I would say there is not more than one-third crop, and those which are now sound could be hardly reliable seed.

I find everywhere the same potatoes planted early are by far the best crop; in some places in Barony of Forth, potatoes planted early on sandy loam are fully equal to the average crop of last four years.

Champions are the main crop. A potato called "Primrose" is a good deal sown, and has done well this year. Primrose is a local name for a potato which was once well-known as "Pink Eye," but which has died out of most counties. It is a medium early potato, and has this year cropped better than Champion, which, in consequence of its late growth, was cut off too early.

I anticipate no scarcity of potatoes for food or seed in County Wexford.

Farmers, hearing such bad accounts from the South and West of Ireland, have an idea they will get famine prices for seed next spring, and will spare them accordingly. Picked eating potatoes are now selling in Wexford market at from 3s. 4d. to 3s. 6d. per cwt. A change of seed would, of course, be beneficial, but the majority of Wexford farmers are quite able to buy fresh seed if they wish to do so. The same remarks which I made in report on Gorey Union would apply here also, as to where fresh seed could be procured.

I think the farmers here have changed seed oftener than in Gorey or Enniscorthy; they seem more alive to the advantage of such.

All was Irish seed obtained in local market.

The seed was distributed on an order from the Guardian of the Division in which the party lived.

No other seed distributed by any charitable fund.

There are four Divisions in this Union which I was not able to get at, namely, Whitechurch, Ballymitty, Harristown, and Bannou.

Harristown and Whitechurch are poor Divisions, in which I would not expect to find good crop. Ballymitty is good, sharp, dry land; the crop ought to be fair. Bannou is perhaps the best tillage land in Wexford. I speak from my recollection of them when I was working in this County four years ago as Assistant Commissioner.

(signed) J. R. Headrick.

#### *General Remarks.*

If seed potatoes are to be distributed next spring, I would beg to make a few suggestions. Up to the present, nearly all seed imported from Scotland have been obtained from the same district, Forfarshire. We have been getting much the same seed year after year.

I believe as good or better change of seed could be got in North of Ireland, in Down and parts of Antrim, provided the seed was bought by a competent judge, who would only buy good sound seed.

I do not mean to say that seed should not be imported from Scotland, but, if possible, I would like to have them from other districts than Forfarshire or Fife.

Another reason why I advocate the purchase of seed in North of Ireland is the fact that if purchases are made largely in Scotland, the price will go up to such a pitch that the ordinary farmer who might wish to change his seed will find the price too high, and will fall back on his old worn-out seed again; the consequence might be serious on next year's crop.

If the thing is to work well, care should be taken to purchase good seed; and not, as a rule, to buy in cheapest market, as was done in 1881.

Supposing seed is bought as I suggest. The next thing to be thought of is the proper distribution of that seed so as to suit certain localities. Seed transported from a bog in Scotland to a bog in Ireland is a poor change. What I

mean

mean is, that seed grown in moory land should be sent to light dry soils, and potatoes grown in dry soils should be sent to the cold moory districts. This is the only way I see to effect a change of seed with beneficial results.

There will, no doubt, be a great scarcity of reliable seed in south and west of Ireland next spring, and as most of the land in what are called the bad districts is cold, or moory, the seed supplied should be from light dry land. This is why I think that potatoes grown in the light friable soils of Down, or the sandy soil about Postrush, county Antrim, would be a better change for these cold moory districts than Scotch seed, most of which is grown in moory land. In 1881 we had to import from Scotland because we could get Champions nowhere else.

(signed) *J. R. Headech.*

25 October 1890.

#### NEW ROSS UNION.

I did not visit the extreme north Divisions of this Union, as I was informed they were nearly all in grass, little or no tillage.

In the Divisions of Rower, Ballyanne, and Clonleish, the crop, though comparatively free from blight, is poor, the tubers being small, and evidently not half ripe. In these Divisions I do not think there is more than one-third of an average crop fit for food and seed.

In the extreme south of the Union, in Divisions of Horetown, Congeen, Tintern, Fethard, Templetown, and Ballyhack, the crop is badly blighted, particularly on seashore.

There is certainly not more than one-third average crop in these Divisions, and these are small, bad to eat, and I fear will not make reliable seed for next year.

The centre of the Union is mostly dry, friable soil. The potatoes are not much blighted, but many of the tubers are small, and not fully matured. This part varies very much; in some places I find fields of potatoes fully up to an average crop; in next townland much below.

However, on the whole, I am of opinion that in the other Divisions there is fully two-thirds average crop fit for consumption or reliable seed.

The crop varies according to the land, tillage, and date of sowing.

In all cases potatoes planted early in March on dry land are a fair crop.

The farmers, as a rule, assure me they frequently get new seed with good results till this year, when they all say the fresh seed is as bad as the old.

Unfortunately the districts most blighted this year are those in which potatoes are extensively grown.

Champion is the main crop; a few early sorts are planted, but only small hits for summer use. Scotch Downs were much grown at one time, but latterly have given place to the Champions, which have done well until this year.

I do not think any other potatoes would take in this neighbourhood.

In all cases on land exposed to the west wind off the sea, I find the crop badly blighted, and, strange to say, in fields exclusively manured with seaweed the crop is much worse than in those manured with farmyard manure.

This I cannot account for, as seaweed, containing a large amount of potash, ought to be a good potato manure, but this, like everything else, can be overdone.

In this Union farmers look well off. The labourer has plenty of employment.

Out-door relief not higher than last year. Potatoes now selling at 3s. 4d. per cwt. in market.

The seed distributed in spring of 1881 was bought in the local market, and did not give satisfaction; consequently much of it has not been paid for.

Though I look on this Union as the worst in County Wexford, I do not anticipate any scarcity of seed next spring. In the first place, the farms are large, farmers fairly well off, and well able to buy fresh seed, if they require such. Secondly, farmers have the idea that seed will be very dear, and will save all they can for spring sale.

The farmers here are a different class to those you meet in West Cork, Mayo, or Galway, who really have neither the means nor the opportunity of getting fresh seed.

(signed) *J. R. Headech.*



## WATERFORD UNION.

About half this Union lies north of the River Suir, in County Kilkenny. This portion of the Union is mostly a grazing country, only small patches of tillage, which vary. In the dry land, where potatoes were planted early, they are a fair crop for this season.

Late sown potatoes on cold soils are a poor crop, the tubers small and not matured. I could say there is not more than two-thirds of an average crop suitable for food and seed.

The Electoral Divisions joining the River Suir on south side are much the same class, mostly grass; but where potatoes have been planted early on dry soils, the crop is fair, not much blighted, but many of the tubers are small.

I think there is fully a two thirds crop in all these divisions.

The Divisions in the extreme south of the Union are much the worst, particularly the parts joining the sea, where the crop was blighted much earlier than inland, and in these Divisions there is much more tillage than in the inland Divisions, where the land is principally in pasture. In this part of the Union I do not think there is more than a one-third crop suitable for seed or food.

Still, I think there will be plenty for seed next spring, as farmers will save all they can, expecting high prices. Farmers assure me they have frequently changed seed, but that they see no difference this year between the new seed and the old; all were cut off at same time.

People in County Waterford do not rely on potatoes as a staple article of food. The labourer has plenty of employment to get at fair wages.

The Champion is the favourite potato for main crop, and has done well since its introduction till this year, when it was blighted too early.

Scotch Downs were the principal crop before Champion was introduced, but are now rarely planted.

Potatoes are dearer in market here than in the other towns in the county, namely, 4 s. 8 d. to 5 s. per cwt.

£ 593 was paid for seed potatoes in spring of 1881, which were divided among 338 holdings under 15 l. valuation.

The seed was supposed to be imported Scotch Champions.

(signed) J. R. Headech.

Waterford, 1 November 1890.

## KILMACTHOMAS UNION.

This is a small Union and thinly-populated (only about 10,000 population), except by the sea, where population is thicker, and where there are many small holdings, the inhabitants of which live partly by fishing, and in some cases take land from farmers for a season's crop. The land is cold and not suited for tillage; the consequence is very few potatoes are planted, but these have turned out badly, as the land being cold and wet in most cases, the crop was not got in early.

Some of the land by the coast is really good potato soil, and usually produces good crops, but this year the blight began so early they were cut off before tubers were half grown; the consequence is half the crop is blighted and rotten, the remainder not half grown, and unripe.

In this Union I think there will be a scarcity of good seed next spring, as few potatoes are sown. In some Divisions they will not have more than sufficient for their own use, and in other Divisions I see very little which could be relied on.

The people do not principally rely on potatoes for food, but I do see a probability of a scarcity of reliable seed.

There is plenty of employment for labourers.

Potatoes now selling at 4 s. 4 d. to 4 s. 8 d. per cwt.

In this Union I find, as in Wexford, that all land exposed to the west wind off the sea the potatoes are much worse than in the same class of land not exposed to the west.

In spring of 1881, 922 l. was expended in the purchase of seed potatoes,

which were divided among 635 holdings, at an average of 25 stone to each holding.

The seed was supposed to be imported Scotch champions.

The rates struck this year are lower than the average for the last four years.

(signed) *J. R. Headeck.*

Waterford, 1 November 1890.

#### CLONMEL UNION.

The Electoral Divisions south of River Suir, in County Waterford, viz., Galmagower, Ballymacbry, St. Mary's, Gurteen, Killaloun, Kilmacoma, Kilmoun, are more or less cold, high land, much of it mountain pasture. The potato crop in these Divisions this year is bad. The tubers are small, unripe, and badly blighted.

In the above Divisions I do not consider there can be reliable seed for next spring, as none of the potatoes seem half matured.

I do not consider there is more than a one-third crop; these are bad for food, and certainly not to be relied on for seed.

Though the people do not now rely on potatoes as a staple article of food as in years gone by, they rely on it to produce pork, poultry, &c., for the market. In this way, the failure or partial failure of the potato crop will affect small farmers in the Divisions I mention.

In the Electoral Divisions north of the Suir, in County Tipperary, the land is much better, but the crop varies very much. In some places there are fully an average crop; in others, not a half crop. Much depends on the soil, cultivation, and time of sowing; in all cases, the early planted are much the best crop.

I would say there is, all round, a two-thirds average crop in these Divisions.

The Champion is the only potato now in use for main crop. Farmers believe in nothing else, and though they have not resisted the blight of late years as well as when first introduced, still they are first favourite, and all others seem to have died out.

This I consider a pity, as Champion is a late grower, and in seasons like this, when blight sets in early, is bound to be a failure.

I have met several places where fresh seed was planted last spring. I can see no difference between them and the old seed.

Potatoes are selling in market at 4 s. per cwt.

In this Union, I could get no information as to what was done under Seed Act of 1880.

#### CARRICK-ON-SUIR UNION.

The Electoral Divisions of Newtown, Tullahought, Bodlyglass, Muckalle, and part of Kilmarry, in the north of the Union, and Rathcormuck, Ross, Ballydurn, and part of Clonea in the south, are high cold lands; in some places, semi-mountain. These Divisions are thinly populated, and mostly in grass. The few potatoes grown are this year a bad crop, tubers small, unripe, and badly blighted.

In the rest of the Union the land is much better, and though the potato crop varies very much, according to the soil, date of planting, and mode of cultivation, there is for this year a fair crop: plenty for food and seed. In all cases, same as in other Unions, the crop where planted early in dry land is far the best.

The Champion is really the only potato now grown. All other sorts seem to have died out, except a few early ones for summer use.

Champions seem to have done well in this locality since their introduction until this year. Farmers assure me they have frequently changed seed, getting Scotch seed from Waterford, with good results until this year, when the new seed is as bad as the old.

There may be a scarcity of reliable seed in some places. The fact that this union only borrowed 52 £ under Seed Act, 1880, speaks for itself; and this was only required for two Divisions, where it was divided among 30 holdings at an average of 30 s. each, all of which has been paid for.

No seed save imported Scotch Champions was distributed in the Union in 1880.

## DUNGARVAN UNION.

In the Divisions of Ringville, Ballymacart, Ardmore, and Mountsteward the potato crop is really bad. Part of Ringville and Ballymacart lie on the sea-shore, where the blight set in early. The crop is hardly worth digging. The other parts of above Divisions (inland) is poor cold mountain land, where the crop is also bad, not so many black as near the sea, but tubers very small and not matured. Ardmore is cold land, not suited for potatoes; Mountsteward nearly all mountain. In these Divisions I do not think there will be one-third average crop, and those are bad for food and not fit for seed.

In Dromana, Keeran, Whitechurch, Cappagh, part of Carriglen, Dungarvan, and part of Clonea the soil is mostly limestone formation. In these Divisions, though the crop varies much according to soil, cultivation, and date of planting, the potatoes all round are fairly matured. I consider there is fully a two-third average crop, suitable for seed or consumption. When I say average crop I mean for last five years, not last year.

In Modelligo, Seskinan, Commaraglin, Bohadoun, and part of Clonea the soil is cold, and now mostly in pasture. The few potatoes grown in these Divisions are far below average; the crop, though not badly blighted, is thin, tubers small, and not matured. Part of Bohadoun, Commaraglin, and Clonea is a wild mountain on which there is no cultivation. In these Divisions the crop will not be more than one-third of an average, and of this very little reliable for seed.

In parts of the Union there will be a great scarcity of good seed next spring. I do not see where reliable seed can be got in the locality, as unfortunately these districts are the potato-growing districts, which usually supplied the market and surrounding districts with seed. The other districts may have enough for themselves, but will have none to spare.

The districts which have suffered most this year (by the sea) are the most thickly populated. The farms, as a rule, are small, and the occupiers appear poor, far below the same class in County Wexford.

As far as I can find, farmers here have much neglected changing seed; I mean getting fresh imported seed. They sometimes change from upland to lowland, but still it is the original seed introduced in 1881.

Scotch Downs and White Rocks were the sorts most planted before the introduction of Champion. Now they have almost disappeared, and farmers believe in nothing but the Champion and a few Flounders for early use.

I think a judicious distribution of fresh seed, at an average of 3 cwt. per holding in the bad districts in this union, to small farmers, would be the greatest possible boon, provided the seed was got from a proper locality and properly distributed.

The sum of 1,911*l.* was borrowed by this Union under Seed Act, 1880.

The sum of 224*l.* 18*s.* 11*d.* has not been paid.

The potatoes were supposed to be Scotch Champions, and gave satisfaction.

The potatoes were divided among about 2,000 holdings, in quantities from 8 stone to 32 stone, according to size of farm.

There has been no other seed distributed since in the Union.

Potatoes are selling in Dungarvan market at 5*s.* 4*d.* to 5*s.* 8*d.* per cwt.

(signed) *J. H. Hoodech.*

Carrick-on-Suir, 8 Nov. 1890.

## MR. DILLON'S REPORT ON COUNTY DONEGAL.

County Donegal, Letterkenny,

24 October 1890.

WITH reference to the state of the potato crop in the parts of the County Donegal inspected by me, I have to report as follows:—

The districts which have formed the subject of my careful personal examination and inquiries comprise the Unions of Milford, Inishowen, Stranorlar, and Letterkenny.

The present failure of the potato crop falls very far short of that which occurred in 1879, both in the extent of the area affected and the resulting loss.

Taught, no doubt, by the disaster of 1879, and probably also deterred by the unremunerative prices which potatoes have brought these late years (falling as low last year in these districts as 1*s.* 6*d.* per hundred), the farmers have reduced considerably the proportion of land hitherto employed in raising this crop. In those parts of the County Donegal which I have visited, turnips and cabbage largely preponderate as green crops, and, this year, are excellent crops in point of yield and quality.

There is also an abundant crop of oats throughout the districts referred to, almost all of which has now been got in, and made up safely in the haggards, and any loss arising from the unfavourable harvest weathers in August and September is fully made by the very large extra return.

Young stock and sheep are still bringing remunerative powers, it being only in aged store-cattle the fall in prices has occurred, and the mountain pastures over which the small farmers in County Donegal have, in most cases, a right of grazing in conjunction with their holdings, I found well-stocked with young cattle and sheep. The rate of wages prevailing in England during the last season has been very good; ordinary field labourers receiving 24 shillings per week. Large numbers from these districts go over to England each season.

Attached to this Report will be found in tabulated form certain particulars regarding the Unions of Milford, Inishowen, Stranorlar, and Letterkenny with respect to what took place in the Unions as to seed in 1880, also what I would recommend as to a supply of seed in 1891.

In places where early planting, good large seed, proper manuring, and cultivation were the rule, little or none of disease is to be found. In several fields that I met with in my examination, absolutely no disease at all was to be found, and the men digging the potatoes in these fields stated so to me, and the tubers were all of good, regular size. But in cases where late planting, small, poor seed, guano, so called, as manure, in place of that from the farm-yard, and bad cultivation were the rule, the crop was diseased, and the potatoes were invariably all very small, in most instances not bigger than large-sized marbles. This state of things I found to exist, totally irrespective of nature of soil, situation as regards altitude, absence of shelter, and proximity to the sea.

For example, in fair clay soils where the planting had been late, the seed used small and poor, and the manuring guano, I found the crop bad in quantity and quality, notwithstanding that the farm was favourably situated; while in several instances, in exposed situations at foot of the high chain of mountains which extend along the peninsula of Inishowen, also in the mountainous district close to Ceshill and Gartna, in the Union of Letterkenny, I found a fair average crop, and a total absence of disease, early planting, good seed, proper manure, and cultivation being the rule in these cases.

Then, as regards proximity to the sea, I will give two examples. I found a full crop of good, large, sound potatoes in a field within two miles of the village of Malin, with only the breadth of the road between it and the sea. And further on at almost the extreme point of Malin Head, in a seemingly poor moory soil, rocky, and the sub-soil whitish sand, within a few feet of the open Atlantic, I found a full average crop of good-sized sound potatoes. In each of the cases near the sea, the seed used was "White Rocks" and "Brown Rocks" mixed. I found also good crops on black moor, almost bog, but dry and recently broken up.

Taking the whole length and breadth of the districts visited by me, and comparing one with the other, it is a diminution in quantity or return, and not the amount of disease which deserves notice; in fact, this year there is absolutely not more of the old potato disease than would be found in a good year, nothing more than what must always be expected to exist in the potato crop. In the Milford Union, except in the small extent of district marked on the map, there is an average two-thirds crop of sound potatoes. In the Inishowen Union the same proportion (two-thirds) are also sound, leaving out the small districts marked. In the excepted districts in these two Unions there is a one-third crop. In the Union of Stranorlar there is in the good districts a full

full average crop, and in the mountain districts a one-third crop of sound potatoes. In the Union of Letterkenny there is the full average crop of good years in the greater part, and an average crop of ordinary years in the remainder; making a full average crop of sound potatoes over the entire Union.

The best eating potatoes are selling at Milford and Carndonagh, the principal market towns in the Milford and Inishowen Unions, at 2 s. 4 d. per hundred, 3½ d. per stone; and at Letterkenny and Stranorlar at 4 d. per stone.

I have not been able to ascertain what the new poor rate for the Union of Milford is, but I am informed it will not be much, if any, over that of last year.

In the Union of Inishowen the new rate averages 1 s. 6 d. in the £. over the entire Union, the highest being 2 s.

In Stranorlar Union the average is just 9½ d. in the £., the lowest being 6 d. and the highest 1 s.

In Letterkenny Union the average is just 1 s. in the £., the lowest being 10 d. and the highest 1 s. 6 d.

These new rates are fair tests of the views entertained by persons having good, reliable sources of information as to the prospect of any distress in these Unions of any account.

The only danger to be apprehended, in my opinion, is that in the mountain districts, or wherever there are small, poor occupiers, the immature, stunted, small potatoes may be retained and used for seed in the coming spring, the larger ones being used or sold.

To avert the evils that would be sure to result from this course being adopted, possibly a real famine next year, I would strongly urge the necessity that exists for supplies of seed being furnished to these districts next spring, "Champion" seed for the most part, and to be got from Scotland.

(signed) T. A. Dillon.

#### MILFORD UNION.

1. Amount borrowed in 1880 ?	£ 7,887.
2. Quantity of potato seed purchased ?	400 tons.
3. Kinds of seed, and where obtained ?	150 tons of "Champions" from Scotland, and 250 tons of "Brown" and "White Rocks" from local dealers.
4. Number of holdings supplied ?	About 2,000.
5. Quantity to each holder ?	4 cwt., total cost, about 2½ s.
6. System of distribution adopted ?	Given out at Milford on orders of Guardians of Division sent in with applicants.
7. What other kinds of seed used throughout Union ?	"Glenkies," "Lumpers," and a kind called "MacMulleins."
8. Which of all kinds mentioned is most used ?	"Champions."
9. What kinds do you consider best suited to the locality, and most likely to be taken by the farmers ?	"Champions" and "Brown Rocks."
10. Estimated quantity likely to be required in 1881, and quantity recommended for each holder ?	200 tons, 2 cwt. to each, half "Champions," and half "Brown Rocks."

(signed) T. A. Dillon.

18 October 1880.

## INISHOWEN UNION.

1. Amount borrowed in 1880 ?	£ 5,384
2. Quantity of potato seed purchased ?	500 tons.
3. Kinds of seed, and where obtained ?	" Champions," 150 tons from Dorsetshire, " Skerry Bluen," 200 tons from Lismavady, " Brown Rocks," and " White Rocks," 150 tons from local dealers
4. Number of holdings supplied ?	About 2,500.
5. Quantity to each occupier ?	4 cwt. , 1 cwt. of each of the kinds.
6. System of distribution adopted ?	Stores were hired from responsible parties at Carridough, Moville, Clonmany, and Bananana, and the seed given out there to the parties on orders of Guardians, the storekeepers being accountable for the seed stored with them.
7. What other kind used in district ?	" Irish Whites" and " Clusters," also " Magnum Bonum."
8. Which of all the kinds mentioned appears to be most in use ?	" Champions."
9. What kinds best for the locality and most likely to be taken by the farmers ?	" Champions," " Brown Rocks," and " Skerry Bluen."
10. Estimated quantity required in 1891, and quantity to be given to each applicant ?	320 tons, 2 cwt. to each, half being " Champions."

(signed) T. A. Dillon.

21 October 1890.

## STRANORLAR UNION.

1. Amount borrowed in 1880 ?	£ 1,380.
2. Quantity of potato seed purchased ?	About 100 tons.
3. Kind of seed, and where obtained ?	" Champions" from Scotland; " Brown Rocks," local dealers.
4. Number of holdings supplied ?	About 500.
5. Quantity to each occupier ?	About 4 cwt.

## SPRANGLAR UNION—continued.

6. System of distribution?	All given out at workhouse on receipt and promissory note for the amount from the party receiving.
7. What other kinds of seed used in district?	"Irish Whites" and "Magnum Bonum."
8. Which of all kinds most in use?	"Champions."
9. What kinds best suited to locality, and most likely to be taken by farmers?	"Champions" for good land; "Irish Whites" for mountain districts.
10. Estimated quantity required for 1891, and quantity for each holder?	About 50 tons; 2 cwt. each, half to be "Champions."

(signed) T. A. Dillon.

23 October 1890.

## LETTERKENNY UNION.

1. Amount borrowed in 1890?	£ 2,000.
2. Quantity of potato seed purchased?	150 tons.
3. Kinds of seed, and where obtained?	"Champions," 60 tons; "Brown Rocks," 60 tons; "Sherry Blues," 20 tons; "Regents," 10 tons. All from Scotland.
4. Number of holdings supplied?	About 830.
5. Quantity to each occupier?	From 2 to 3 cwt.
6. System of distribution adopted?	All given out at a store at Letterkenney on written orders of Guardians handed in by applicants, storekeeper being accountable for the seed left with him.
7. What other kinds of seed used in the district.	"Irish Whites," "Clusters," and "Forty folds."
8. Which of all the kinds mentioned appears to be most in use?	"Champions."
9. What kinds best suited for the locality, and most likely to be taken by the farmer?	"Champions," "Sherry Blues," and "Irish Whites" for the mountain districts.
10. Estimated quantity required in 1891, and quantity to be given each holder?	About 70 tons; 2 cwt. to each, half being "Champions."

(signed) T. A. Dillon.

22 October 1890.

## REPORT BY MR. THOMAS ROBERTS ON THE STATE OF THE POTATO CROP IN WEST CLARE

29 October 1890.

In accordance with the instructions I received on the 13th inst., I beg to state I proceeded on the following day to Ennis Poor Law Union, and thence to Carrifin, Ballyvaughan, Ennistymon, Kilrush, and Kiladysart Unions, returning from the Shannon side through Ennis Union. Nearly the whole of West Clare, lying north of a line drawn from Ennis to Ennistymon, is of limestone formation, and known as the Crag district. Part is somewhat of a mountainous character. The whole is undulating, with patches of moor and bog occasionally to be met with, on the line from Ballyvaughan to Ennistymon by Lisdoonvarna and on to Miltown Malbay. The Crag country is nearly altogether pastoral (as most of West Clare is) and the population sparse; in parts the herds constitute a large portion of it. South of the supposed line I have referred to the formation is for the most part quite different, still retaining more or less its undulating and pastoral character.

During the progress of my inquiry and inspection I ascertained, as far as possible from sources that I believed reliable, the state of the potato crop in their respective localities. I had also the advantage of the opinion of clergymen and others who I considered could give reliable information on my route. The weather having been for the most part fine, I had the opportunity of seeing potatoes dug at very many points, and in addition to this I examined them occasionally with a spade I carried for the purpose.

The crop throughout West Clare is a bad one, particularly on the coast line, though occasionally two thirds of an average crop were met with; but these were quite exceptional. As a rule, in all cold heavy clay soils, and wet moor or bog, particularly in mountainous districts, there is not one-fifth of an average crop in point of weight, most of the tubers are diseased and nearly all small. In dry light moory or bog soil there is about one-third in weight of an average crop; of this third scarcely one-half of it are sound table potatoes, the whole being soft and apparently possessing little nutritive properties. Hardly in any case was a crop to be met with free from disease, and many seem to think the tubers will not keep in the pits. In some places, where they were being dug, many of them were sprouting, and these probably will not keep, and certainly will not do for seed. The potatoes succeeded best where sown on new or lea and, locally known as "Baun."

As an indication of the short supply of potatoes, young pigs are almost unsaleable in the markets and fairs in the district, and there will probably be a very limited stock of grown pigs after Christmas. The potato constitutes nearly the whole of the green crop; comparatively few turnips and mangolds are produced, but where they were met with they were good crops. Of corn, the oats is fully an average or over it, and the little wheat cultivated produced fairly.

Schedules are attached giving some particulars of the cost and distribution of the potatoes under the Seed Act of 1880, and endorsed on these Schedules are extracts from the valuation books, which may be useful in forming an approximate estimate of the probable seed required in 1891.

In Kilrush Union 8,900 *l.* worth of potatoes passed through the hands of the guardians and their officers in 1880, and of this sum it appears 1,823 *l.* has been pronounced "irrecoverable."

The variety of potato sown in West Clare has been chiefly the champion. In many places the Scotch down (local name Leather Coats) has been grown, and it formed the bulk of the potato crop previous to 1879. It is a better keeping potato than the Champion, which has been found an inferior table potato between May and August. The flounder, as an early variety, produced a good crop this year, particularly in the south part of Ennis Union. Around  
Ballyvaughan



Ballyvaughan nearly average crops were produced from seed purchased last spring in county Galway by a few farmers. On the other hand there was scarcely a half crop raised on dry moory soil at Spanish point (near Miltown Malbay) from seed, said to have been imported Champions from Scotland. On the same flat of moor, and quite near, a heavier crop was being dug out from home-grown seed. Miltown Malbay was one of the best localities for producing good potatoes hitherto, and this season the average produce there is under one-third. At Kiladysert, Champion seed was got last spring from a Limerick merchant, the produce is very bad, while an excellent crop was grown from local seed. Six farmers on the islands in the Fergus also got seed from Limerick, and they have bad crops. The potatoes in West Clare are most likely unfit for seed and cannot be depended on. On review of the whole matter it appears highly desirable that new and sound seed should be introduced in 1891. In fact it is essential for the future well-being of the classes depending much on the potato crop, but great care must be exercised to get sound seed, as the disease is reported to have affected the crop in Scotland to a much larger extent than it has in the midland and southern counties in England. Flounders for early use, and Champions and Scotch Downs (a variety known as Leather Coats in Clare, as White Rocks in the north of Ireland, and as Green Tops in the south) for the general crop, distributed with due discretion amongst the tenants and labourers depending on farming business, would most likely prove an incalculable benefit to these classes, especially to those whose valuations do not exceed 10*l.*, as they will suffer more by the loss of the potato crop than larger farmers. On the coast-line there is a limited area of dry dark light soil, which hitherto has been found best for potato culture, and this land is usually let in con-acre annually, rents varying from 3*l.* to 6*l.* an Irish acre, the user cultivating and manuring it. In some places it has been growing potatoes, from the same stock, for a great many years in succession, having been repeatedly manured with seaweed and sea sand. The poor fishermen rent some of this land when and where they can get it, and they are a class that will suffer more or less by the failure of the crop, and are deserving of consideration, more particularly as potatoes are used at the table two or three times a day where fish is to be had.

Owing to the rainy season, turf has not been well-saved, and it is now much dearer than usual, particularly in the northern part of West Clare, where the price is 6*s.* 6*d.* per crate. This will contribute to the distress in some cases. The projected South Clare line of Railway, when opened to the small land-holders and labourers for work, will meet the requirements in the vicinity of the line. The pier at Seafield is not complete, I believe, and to finish the work within a reasonable time would afford employment in a populous district, and where it is much required.

(signed) *Thomas Roberts.*

## ENNIS POOR LAW UNION, COUNTY CLARE.

SCHEDULE relating to Seed Potatoes given in 1880, showing the Classes that got them, and Cost.

Electoral Divisions.	Persons, supposed to be Heads, Farm Servants, and Small Householders, who got Seed on Security of Ratepayers, principally for Coe-Acre	Occupiers Valued at or under £ 4	Occupiers Rated between £ 4 and £ 15	Total Number who received Seed	Stooks of Seed supplied to each Division.	Cost
						£. s. d.
1. Clonsilla -	77	70	27	174	3,709	284 16 5
2. Celnagh -	84	13	32	129	2,638	203 1 7
3. Caisheen -	24	36	67	131	3,489	267 5 10
4. Dossa -	60	7	40	110	3,734	209 8 11
5. Drumline -	23	8	14	45	1,162	89 - 5
6. Dysert -	26	6	63	95	3,751	267 5 3
7. Ennis -	148	139	48	335	7,260	656 11 4
8. Kilskeer -	39	10	57	106	3,261	249 15 11
9. Killoe -	58	10	27	90	2,573	197 2 6
10. Kilmenna -	81	10	16	100	3,406	260 18 7
11. Newmarket -	26	18	51	105	2,708	211 13 3
12. Six-mile bridge -	43	18	13	76	1,689	130 12 9
13. Templemoly -	36	12	18	67	2,166	165 3 5
14. Innifinloga -	66	12	32	110	2,697	206 12 3
15. Urlam -	49	18	13	80	1,081	151 15 9
16. Furra -	22	7	48	87	2,564	190 8 6
17. Kilmansiv -	24	2	75	101	3,379	258 17 11
18. Kinstock -	24	11	37	72	1,901	145 10 10
19. Kilnaghtis -	21	5	31	57	1,625	130 16 6
20. Spencelhill -	37	11	16	64	2,141	164 - 6
	1,012	424	724	2,360	57,075*	4,374 16 8

\* Viz., 526 tons 15 cwt., at 121 5s. a ton.

The potatoes were stated to be Champions imported from Scotland, and supplied through contractors in Cork, at prices varying from 8d. 10s. to 11d. per ton.

In each of the Electoral Divisions, Nos. 1, 2, 3, 4, 5, 7, 11, 12, 13, 14, 15, 19, and 20, it is computed that the crop is half an average one. In the remaining Divisions it is computed the crop is under one-third of an average one.

Electoral Divisions. Numbers.	Holdings Valued at or under £ 4	Approximate Number of Holdings Valued from £ 4 to £ 15
1	23	27
2	41	32
3	51	67
4	38	49
5	18	14
6	31	68
7	111	48
8	25	67
9	22	27
10	30	15
11	41	51
12	20	13
13	36	16
14	17	32
15	31	13
16	32	48
17	10	70
18	23	37
19	9	31
20	11	16
	611	724

## CORROFIN POOR LAW UNION, COUNTY CLARE.

SCHEDULE relating to Seed Potatoes given in 1880, showing the Classes that got them, and Cost

Electoral Divisions.	Persons, supposed to be Heads, Farm Servants, and Small Householders, who get Seed on Security of Ratepayers, principally for Corrofin.	Occupiers Valued at or under £ 4.	Occupiers Rated between £ 4 and £ 15.	Total Number who received Seed.	Stacks of Seed supplied to each Division.	Cost, including Cartage and other Incidentals.
						£. s. d.
1. Ballycuthy - -	9	6	14	20	768	59 5 7
2. Glenroe - -	14	12	23	49	1,466	113 2 8
3. Boston - -	38	18	40	102	2,464	199 9 7
4. Corrofin - -	55	90	16	94	1,988	143 10 2
5. Killaneboy - -	30	27	36	90	1,952	150 18 1
6. Kilscaught - -	4	15	43	63	1,500	115 8 9
7. Rath - - -	10	3	42	55	1,792	138 - 1
8. Ruon - - -	19	18	23	60	1,584	122 14 1
9. Muckanagh - -	29	34	63	125	3,028	273 8 10
	268	156	305	780	17,044*	1,316 18 10

\* Viz., 166 tons 10 cwt., at 12½ s. a ton.

The potatoes were purchased on tender from John McGilgan, of Gort, and J. P. Evans, of Limerick, average price, 11 l. 14 s. 6 d. per ton; for 108½ tons, 1,254 l. 16 s., exclusive of cartage, &c.; stated to have been imported Champagnes from Scotland, and some Queen Besslers.

In the Electoral Divisions, Nos. 1, 2, 3, 4, 8, and 9, it is computed the crop is one-half an average one. In the other three Divisions the crop is computed at one-third an average one.

Electoral Divisions Numbered.	Holdings Valued at or under £ 4.	Holdings Valued from £ 4 to £ 10.	Holdings Valued from £ 10 to £ 15.
1	10	14	3
2	48	27	10
3	84	92	28
4	168	53	17
5	150	30	8
6	21	45	33
7	9	25	28
8	64	29	11
9	115	55	30
	672	523	168

## BALLYVAUGHAN POOR LAW UNION, COUNTY CLARE.

SCHEDULE relating to Seed Potatoes given in 1880, showing the Classes that got them, and Cost.

Electoral Divisions.	Persons, supposed to be Herds, Farm Servants, and small Householders, who got seed on Security of Ratesayers, principally for Con Acres.	Guarantees Valued at or under £ 4.	Occupiers Rated between £. 4 and £. 16.	Total Number who received Seed.	Status of Seed supplied in each Division.	Cost.
1. Abbey - -	44	15	50	139	3,481	£. s. d. 300 16 11
2. Carra - -	10	1	10	21	540	49 8 -
3. Castletown - -	7	1	1	9	288	92 5 4
4. Drungreehy - -	49	13	33	95	2,715	208 19 1
5. Derreen - -	12	2	7	21	388	29 18 -
6. Gleninagh - -	16	11	32	59	1,190	92 2 -
7. Mount Elva - -	11	1	6	20	568	43 17 -
8. Lisdoonvara - -	3	—	13	16	410	52 2 -
9. Noughaval - -	12	3	8	18	476	36 17 -
10. Oaghnamma - -	22	5	20	33	1,600	128 13 8
11. Rathberney - -	19	3	2	24	560	43 3 4
	266	55	204	466	12,707*	988 1 11

\* Val., 10 tons 19 cwt., at 12s. 7 a n ton.

The potatoes were purchased (not by tender or under contract) from McKearie, in Dublin, and Boyd, in Limerick, at different prices, say, 1 s. 6 d. and 1 s. 8 d. per stone. Seated to have been imported Scotch Champions.

In the Electoral Divisions, Nos. 1, 2, 3, and 10 the crop is computed at half an average one. In the remaining Divisions the crop is computed at one-third.

Electoral Division Number.	Holdings Valued at or under £ 4.	Holdings Valued from £. 4 to £. 16.
1	50	18
2	4	7
3	3	—
4	40	16
5	2	10
6	35	10
7	2	9
8	13	18
9	1	3
10	0	10
11	17	3
	179	106

## ENNISTYMUN POOR LAW UNION, COUNTY CLARE.

SCHEDULE relating to Seed Potatoes given in 1880, showing the Classes that got them, and Cost.

Electoral Divisions	Persons, supposed to be Herds, Fairs, Servants, and small Householders, who got Seed on Security of Ratsayers, principally for Cows &c.	Occupations Valued at or under £ 4.	Occupations Rated between £ 4 and £ 15.	Total Number who received Seed.	Stones of Seed supplied in each Division.	Cost, exclusive of Carriage, Commission, and other Incidentals.
						£. s. d.
1. Anagh - -	10	9	66	80	3,223	107 13 -
2. Ballysteen - -	9	31	81	121	2,898	93 - -
3. Ballyvaughan - -	19	11	49	73	3,869	124 10 -
4. Ennistymon - -	22	36	71	129	3,717	148 - -
5. Killaspigotane - -	11	15	40	66	1,443	60 11 -
6. Killbigh - -	3	41	63	108	3,093	100 - -
7. Killfemora - -	8	11	44	63	1,416	88 10 -
8. Cloughna - -	—	19	32	84	644	35 19 -
9. Lisannor - -	13	17	30	60	1,385	63 - -
10. Lorrige - -	4	6	16	26	340	13 - -
11. Miltown Malboy - -	69	73	63	205	7,581	367 7 -
12. Moy - -	17	33	63	113	5,975	167 - -
13. Ballyen - -	13	29	62	117	4,560	176 - -
14. Ballagh - -	4	24	64	92	3,091	137 16 -
15. Clooney - -	4	7	52	63	2,328	102 13 -
16. Cloonanah - -	17	28	68	113	7,069	233 13 -
17. Formyle - -	6	13	31	49	1,617	56 - -
18. Magheranagh - -	12	16	53	81	2,963	105 15 -
19. Kilenny - -	3	6	14	23	756	28 4 -
20. Smithstown - -	7	6	22	34	893	59 - -
	243	406	1,006	1,659	67,680*	2,264 8 -

\* Viz., 561 tons 16 cwt., at 67. 6s. a ton, net cost, see foot-note.

The potatoes were purchased "as best the Guardians could buy them"; 7,927 stones of Champions at 1s. 5d.; 3,997 Rocks, 1,437 Regent, and 43,009 stones purchased on commission in County Galway. The carriage and other expenses came to about 15 per cent. on first cost.

The potatoes were stored in the Workhouse, and distributed by the Poor Rate Collectors to the people recommended by the respective Guardians of the several Divisions.

It is computed that in each Electoral Division the crop does not exceed one-third of an average one.

Electoral Divisions. Numbers.	Holdings Valued at or under £. 4.	Holdings Valued from £ 4 to £ 10.
1	68	18
2	81	46
3	59	23
4	90	40
5	40	10
6	65	42
7	44	21
8	32	32
9	50	16
10	30	9
11	68	81
12	69	39
13	62	90
14	64	23
15	52	4
16	68	47
17	21	14
18	55	20
19	14	7
20	22	6
	1,062	690

## KILRUSH POOR LAW UNION, COUNTY CLARE.

SCHEDULE relating to Seed Potatoes given in 1880, showing the Classes that got them, and Cost.

Electoral Divisions.	Persons, supposed to be Heads, Farm Servants, and small Householders who get Seed as Security of Ratepayers, principally for Conscience.	Occupiers Valued at or under £. 4.	Occupiers Seed between £. 4 and £. 15.	Total Number who received Seed.	Cost, including Carriage and Incidentals.
1. Clonsilla - -	8	11	32	51	The total cost to the Union appears to have been 8,800 l.
2. Clonsilla - -	28	8	68	104	
3. Coonacore - -	29	62	118	109	
4. Cragh - - -	34	27	86	167	
5. Darabeg - - -	85	80	86	251	
6. Durnahilly - -	13	120	86	225	
7. Kibblyowen - -	50	20	95	174	
8. Kibice - - -	56	131	71	258	
9. Kibland - - -	30	36	63	129	
10. Kibluar - - -	18	11	80	109	
11. Kilmurry - - -	15	27	37	97	
12. Kilmush - - -	91	42	166	299	
13. Knock - - -	14	90	50	90	
14. Quarin - - -	14	29	53	120	
15. Rushoon - - -	29	44	91	174	
16. St. Martins - -	10	10	29	55	
17. Cahamurphy - -	1	29	60	90	
18. Glenmore - - -	4	21	78	101	
19. Eighan - - -	29	103	95	225	
20. Knocknagore - -	10	32	68	110	
21. Kilmihil - - -	4	38	89	131	
22. Tullymore - - -	8	8	39	40	
23. Knockmaholey - -	6	24	64	94	
24. Mullagh - - -	10	6	38	63	
25. Slieven - - -	40	16	24	80	
26. Moyate - - -	60	63	62	190	
27. Tullig - - -	78	7	45	130	
	856	1,015	1,835	3,706	£. 8,800

The potatoes were supplied by local merchant, on tender (stated to have been imported Champions and Rocks from Scotland), at various prices. The total cost was 8,800 l. The seed proved good.

In the Electoral Divisions, Nos. 16, 18, 13, 14, 15, 16, 22, 26, and 27, the crop averages about one-half, and in all the other Divisions the crop is under one third.

Electoral Divisions, Numbers.	Holdings Valued at or under £. 4.	Approximate Number of Holdings Valued from £. 4 to £. 15.
1	43	32
2	6	68
4	70	118
4	25	86
5	26	86
6	85	80
7	165	93
8	207	71
9	69	63
10	33	80
11	75	67
12	31	160
13	18	36
14	46	53
15	153	91
16	10	29
17	92	60
18	36	76
19	75	93
20	30	68
21	30	89
22	15	39
23	39	64
24	38	84
25	30	94
26	114	62
27	63	45
	1,669	1,535

## KILLADYSERT POOR LAW UNION, COUNTY CLARE.

SCHEDULE relating to Seed Potatoes given in 1880, showing the Classes that got them, and Cost.

Electoral Divisions.	Persons supposed to be Heads, Farm Servants, and Small Householders, who got Seed on Security of Ratepayers, principally for Cash-Acre.	Occupiers Valued at or under £4.	Occupiers Rated between £4 and £15.	Total Number who received Seed.	Stones of Seed supplied to each Division.	Cost, exclusive of Carriage and other Incidentals.
						£. s. d.
1. Ballynasally -	2	10	15	27	352	32 4 10
2. Chaleged -	0	13	83	106	4,108	213 4 6
3. Coolmeen -	15	18	35	83	2,488	120 17 0
4. Kilchreest -	81	18	65	114	3,984	309 18 8
5. Kilfidane -	33	14	106	153	5,444	437 - 6
6. Kil'adysert -	31	19	80	135	3,496	200 11 -
7. Kilofin -	21	0	41	62	2,374	181 2 4
8. Kilmunry -	3	20	83	115	3,402	257 1 -
9. Lisasey -	00	28	53	106	4,728	353 10 2
10. Lisheen -	11	5	70	86	3,368	251 12 6
11. Rinalton -	5	9	38	52	1,708	133 10 3
	180	155	601	1,026	36,714*	3,074 13 4

\* Val., 229 tons 0 cwt., at 11 £ 10 s. a ton.

The potatoes were partly procured by tender and contract from Egan, in Dublin, at 1 s. 6 d. per stone, and from M'Kenzie at 1 s. 4½ d. Some were got from Evans & Co., in Limerick, and some were bought by the Union Clerk. The potatoes were said to have been imported Champions, except the lot from M'Kenzie, which were represented to have been brought from America, and they proved bad seed. They were given out by the Clerk of the Union.

In each of the Divisions the crop is computed at one-half of an average crop.

Electoral Divisions. Numbers.	Holdings valued at or under £4.	Holdings valued from £4 to £15.
1	10	16
2	13	94
3	18	70
4	18	81
5	14	139
6	12	97
7	46	57
8	20	107
9	28	81
10	5	74
11	9	48
	165	800

REPORT BY MR. CUNNINGHAM UPON THE UNIONS OF BAWNBOY,  
CARRICK-ON-SHANNON, MOHILL, AND MANOR-HAMILTON.

BAWNBOY UNION.

*Seeds Act, 1880.*

1. Procured from Scotland	-	1,415 cwt.	Champions at 11s. 6d.
Supposed to be from England	-	1,908 "	Regents " 8s. 0d.
About half imported	-	1,067 "	Skerries " 5s. 0d.
Irish and Scotch	-	2,834 "	Rocks " 5s. 0d.

TOTAL - - - 7,233 " } cost 3,249l 12s. 7d.  
361 tons 13 cwt.

2. (a.) The average quantity about 3 cwt. to each holding.

(b.) So that, say, 2,400 holdings were supplied, and a like number would require a supply this year.

(c.) and (d.) 8 cwt. the largest and 2 cwt. the smallest quantity supplied to a holding, and it was limited to holdings valued at 15l. or less.

(e.) Tenders were invited for some. The Champions and imported Skerries were excellent.

(f.) The so called Regents were procured from an agent in Dublin. £.800 paid for 100 tons, and it is reported they were very bad (believed to have been "German Reds"), and they turned out an utter failure. The home supply, Rocks, &c., were also largely unsatisfactory.

3. There was distribution from the workhouse officials and by the Guardians elsewhere.

4. Some trifling distribution in 1880 from Marlborough Fund.

5. Very little seed supposed to come in from outside sources.

6. The Champion has generally supplanted all others. As it has now suffered from the attack of blight a fresh variety would seem to be necessary.

7. About 35 per cent. of a crop over the Union.

8. This average is indebted to a considerable extent to the higher results on plots planted on newly broken up ground or lea. There will be some passable seed where the produce of such fresh land is available, but new seed would be urgently required in the poorer Divisions.

The oats appear to be nearly an average, badly saved. Grass abundant, and at many of the fair-sized holdings I observed considerable stock, with hay, cabbages, &c., a fair winter provender. Turnips or other green crops so little grown as not to be worth consideration. Turf appears convenient, in fair supply, but not well dried.

CARRICK-ON-SHANNON UNION.

*Seeds Act, 1880.*

£. 564 paid for potatoes, 490 tons Champions, imported from Scotland. price 11l. 10s. per ton, quality excellent, procured by tender through Mr. Middleton, Sligo, principally.

An average of about 4 cwt. was supplied, and to holdings under 15l. valuation; the number of such holdings may be taken at 2,500

6 cwt. the maximum quantity to a holding.

1 cwt. the minimum quantity to a holding.

Each Guardian directed the distribution over his district.

Very little new seed imported within five years.

Champions have been the prevailing variety, and seem still the favourite. Some of the larger farmers speak well of "Magnums" as having resisted the blight better this year.



Five tons of "Skeries" were bought in 1880 by the Guardians as an experiment, but they proved an entire failure, and would not now be acceptable. Magnums, on the other hand, do not suit the habits of the very small holder, as they are not at their best till the following May or June.

Over this Union the blight has probably taken 30 per cent. of what was otherwise about 70 per cent. of an average crop, leaving 40 per cent. of sound potatoes of an indifferent quality, small and soft.

Seed will generally be kept for spring, but of a bad description, and in three electoral divisions it is doubtful if there will be even bad seed.

The Southern half of the Union, say, practically, the portion in Roscommon with the Carrick-on-Shannon and Annaduff divisions in Leitrim, is not at all a poor district, the holdings are of a fair size and a useful description of pasture.

There is but little migratory labour reported as connected with the other or bad parts of the Union.

The oat crop appears to be about an average one badly saved, and that and the potato are the only crops grown to any important extent. After-grass on old meadow lands, and indeed pasture generally, is abundant. A good deal of young stock calves, yearlings, &c., to be seen along the road. This description, however, is not applicable to parts of the division of Leitrim, &c. About many average-sized holdings are to be seen excellent cabbage plots, with abundance of coarse hay.

#### MOHILL UNION.

*Seeds Act, 1880.*

£. 6,160 paid for potatoes = 513 tons. Principally Scotch Champions produced by tender of Messrs. T. M. McKenzie and Sons and others. Champions at 11*l.* 15*s.* per ton; Regents at 10*l.* 10*s.* per ton.

Quality was excellent.

About 3,400 holdings were supplied with an average of 4 cwt. each. The same number may be taken as likely to require seed this year.

6 cwt. was the largest quantity to one holding, and 15*l.* valuation was the highest limit.

1 cwt. was the smallest quantity supplied.

Each district was superintended by its own Guardian as to distribution.

No distribution from "Tuke" or "Marlborough" funds.

Some Scotch seed potatoes have been imported within the past few years by a local trader, but they find their way generally to the larger holdings.

"Champions" both general and the favourite. It has not withstood the blight, however, and I should recommend a fresh variety if obtainable.

Near Carrigallen I found that Magnums had been tried here and there, and they dug out sounder. They are fit for use in the ensuing spring and summer, and therefore rather above the peasants' methods.

The crop over this Union was about two-thirds of an average, and one-third of that is gone from the disease, leaving a third of an average crop for use and seed.

I consider that on holdings in the eastern half of the Union there will be no potatoes to make good seed. Much of this Union consists of cold wet land, very badly cultivated, where it is cultivated at all, and the prevailing wet autumn, following a sunless and cold summer, has told disastrously on the yield of potatoes. I looked at the lifting of them on scores of plots, and if the labour was of much value the crop would not pay for it. The produce was numerous but of the size of large marbles generally, and a common description, i.e., "they are very soft and watery, sir," is too evidently accurate enough.

Oats, the only other crop grown to any extent, is nearly up to an average, while straw and hay are over an average. After-grass and pasture generally very good, and there appears a good deal of stock on the lands. This brighter aspect of things is to be seen on the better parts of the Union. I learned from an intelligent schoolmaster in one of the very worst divisions of

Carrigallen, that there was and is a good deal of migratory labour to England from his neighbourhood.

In several places I heard of the exceptionally good result of potatoes planted on lea; tubers larger, finer, and sounder; a crop twice as valuable as on adjoining worn-out plots.

# MANORHAMILTON UNION.

## *Seeds Act, 1880.*

Procured 4,328 cwt. potatoes at a cost of 2,303*l*.

Champions	-	-	195 tons at 11 <i>l</i> .	Imported from Scotland.
Sherries	-	-	20 " " 7 <i>l</i> .	Irish.
Rocks	-	-	1 " " 5 <i>l</i> .	

One of the Guardians proceeded to Scotland and purchased. Quality very good.

The average supplied to each holding seems to have been under 2 cwt., and therefore about 2,200 may be taken as the number of holdings under a value of 15 *l*. which would require seed this year.

3 cwt. was the maximum and 1 cwt. the minimum quantity supplied.

The Guardians superintended the distribution in their respective Divisions.

There was a considerable quantity of imported seed distributed from Tuke's Fund in 1880. None since.

Champions the principal variety grown on the small holdings. A new kind would appear to be most desirable.

Taking the whole Union, there seems to be between a half and a third, say, 40 to 45 per cent., of an average crop to the good now.

The gross yield was about 70 per cent. on an average, and a third of that lost by the disease.

On one-third of the Union the holdings are very small and the occupiers poor; the privation in the winter will be sharp. The potatoes, even if to be bad, are not fit for seed. There is much need of improved cultivation along with fresh seed. A good deal of migratory labour is spoken of as connected with this district. Very little crop of any other kind grown. Some patches of oats still in the field are to be seen. The general outcome of this crop has been nearly up to an average. On the better holdings a good deal of stock to be seen. Where potatoes had been planted on lea the result is nearly a double outcome as compared with the worn-out plots surrounding it.

(signed) *John Cunningham.*

## MR. DORAN'S REPORT.—COUNTY KERRY AND PARTS OF COUNTY CORK.

Ballaghaderreen,

8th November 1890.

In accordance with instructions received on 15th ult., I have, since then, made an inspection of the following Unions:—

Killarney, Cabirciveen, part of Keemare, Tralee, Dingle, Listowel, Glin, Rathkeale, Kanturk, Millstreet, and the northern parts of Dumanway and Macroom.

I now beg to submit—

(a) The following report describing the condition of the potato crop in the several Unions through which I travelled.

(b) A summary giving, under different headings, the information I was directed to collect with reference to Seed Act of 1880, &c.

Everywhere

Everywhere I travelled I went into almost every potato field within easy reach of the road, where persons were engaged raising the crop; and in this way I had abundant opportunities of forming a correct opinion of its condition.

In most districts the crop is extremely variable in yield and the quality very inferior. The proportion of diseased, or "black," potatoes is very small, and much less than that of last year. In many cases the acreable yield of sound potatoes is above the average, but the quality is everywhere exceptionally bad.

The deficiency in the crop has not arisen, as in other years, from rot resulting from the blight, but has been caused by the extraordinary rapidity with which the stalks died away at an early period in the growth of the crop. The decay of the stalks was so rapid, and the summer so wet, that the great bulk of the crop consists of small immature tubers, and where they attained full size they are unripe and bad for food.

In the course of investigations I had constantly before my mind the desirability of noting carefully—

- (1) The conditions under which the crop failed or partially failed.
- (2) The conditions under which the crop succeeded.

With the view of condensing this report as much as possible, I think it would here be convenient to note the result of my observations on the conditions affecting the growth of the crop, and any other information which applies generally to the districts through which I travelled.

The potato universally grown is the Champion.

When planted on wet land, which necessitated late sowing, the crop has failed. It failed under such circumstances everywhere, no matter whether the seed used was old or freshly imported. I have found this result along the seaboard near Kenmare and Cahirciveen, and also inland in the Kanturk and Milstreet Unions. In Kenmare I was informed that a quantity of Champion seed was imported direct from Scotland this year, and that the persons who got it reported it was no better than the old. I procured the names of several of these people, and visited the holdings of four of them, and in every case I found they had planted the small quantity of seed they got in wet moor or bottom land with the object of changing the seed from such soil to the clay land next year. The produce is unfit for seed.

Districts where the crop has failed are all wet, cold lands, but the comparatively dry land and the wet are so intermixed that it would be impossible for me to locate each; and it should be borne in mind that about half the crop is as much below one-third of an average as the remaining half is in excess of one-third.

There is nothing like uniformity of crop. You will frequently find in every district a good crop side by side with a bad one, and the difference in yield regulated by the time of sowing, condition of the land, and seed used.

The crop partially failed when planted late, even on moderately dry land, no matter whether new or old seed was used, the produce of the new being always somewhat better than the old.

The crop is very bad on old worn-out soils, irrespective of the time of sowing or class of seed used.

The crop has partially failed along the sea-board, even on dry soils where fresh seaweed was applied as manure.

Good crops are to be found in every district on dry set land which was planted early with imported or carefully selected seed. I have seen some very poor crops on such land, but in every instance I satisfied myself thoroughly that the failure was due to the bad seed used. In such cases I asked the tenant to pick out for me similar potatoes to those he used for seed, and most of those so selected were quite unfit for seed, many being only 1 inch in diameter, which would be planted uncut, and those 1½ inches in diameter, if with good eyes, would be cut in two. The planting of this small seed seems to be the general practice in some districts where the crop is now very bad.

I have not seen a failure of crop where carefully selected seed was planted early on fresh dry land, fairly manured, and well cultivated.

In the districts where the yield is one-third, and less than one-third, the main bulk of the crop consists of unripe and immature tubers, which are bad food and unfit for seed.

The people in these districts do not now use potatoes for food as much as they used to. Yet on comparing the extent of land under the crops for the five years ending 1885 with the average of 1889-90, we find only a slight decrease:—

	Kerry.	Cork.	Limerick.
	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>
Average, 1880-85 - - - -	29,419	68,434	22,610
“ 1889-90 - - - -	28,140	61,368	20,247
Decrease - - - -	1,279	4,066	2,373

This proves that while the people do not depend so largely on the potato for food they use it more largely for pig and cattle feeding and fowl; and from the sale of these they find the money to buy the meal and flour which now forms the substitute in their dietary for the potato. The importance of the crop has therefore not much diminished.

The Seed Act of 1880 conferred an incalculable boon upon this country. The common belief is that the introduction of large quantities of good seed at that time saved the country from years of famine since. It was most fortunate that the Champion potato was then so largely imported in preference to other kinds. It has proved itself especially adapted to this country. Any other kind then introduced has since been discarded, and no other variety of potato is now extensively grown in south of Ireland.

The condition of things now, in relation to the crop, is much the same as in 1879, and there is, without doubt, as much need for the introduction of new seed. Many people assert that the vitality of the Champion is declining, but I do not hold that view. It has not been a bad crop any year up to this, even in districts where the practice of changing the seed is not observed. In reviewing the state of the crop it must not be forgotten that this has been altogether an exceptional year, and the oldest person does not remember a season more unfavourable for the maturing of the potato crop than this has been. It is clear that the setting of the immature crop of this year must produce bad results, while there is no reason to doubt that the introduction of imported seed will produce as good results as heretofore.

There are a few other kinds of robust-growing and disease-resisting potatoes, such as the Skerry Blue, Reading Hero, Scotch Kemp, Grampian, but only a limited quantity of seed could be procured, and I don't think the farmers would be much inclined to give them a trial, as they like the Champions better than any other kind.

In the event of seed being imported, every precaution should be taken to ensure the introduction of genuine seed. There is a quantity of good seed in Ireland at present. If an Act be passed to import seed from Scotland, prices there will double as they did in 1880, and it is not unlikely that the Scotch merchants would buy Irish seed, take it to Scotland, and tranship it here. To render this impossible, the Seed Act should contain a clause prohibiting the exportation of potatoes from Ireland before 1891.

Seed suitable for some portions of Ireland could be purchased in other parts, but it would be well to prevent our buying our own seed as imported seed.

Sound, well-grown seed from the strong lands in the midland counties should do well in the south and west of Ireland.

In districts where the average yield does not exceed one-half, the present crop may be regarded as unfit for seed; and, if possible, the people should procure the whole of their seed for next crop outside their own districts. But I fear if an effort were made to provide persons in such districts with the large quantity of imported seed requisite for the whole crop, the demand on the markets would cause the price to run too high. To obviate this difficulty, I would recommend that, while a liberal allowance of seed be given in those districts where the crop does not exceed one-half, three-fourths of the quantity

so given should be imported seed, and the remainder carefully selected home-grown seed.

The best and most uniform crops of potatoes I have seen were grown from carefully selected home-grown seed. I came across some striking examples of this. Near Killarney I found a man digging a very good even crop of potatoes. I said, "These are grown from imported seed, I suppose?" He said, "No, this is the same seed I got from the Union long ago. I have never parted with it, and have always had good crops. This year I have the best crop about." I asked him how he managed to be so successful, and he said, "I pay great attention to the seed, change it every year from moor to clay and clay to moor, and when picking out seed I select the roundest and best looking potatoes with good deep strong eyes, and cut them into fair-sized sets. I never cut up a very large or flat potato for seed, and I never plant them so small that they do not need cutting." Beyond Killorglin, near Cromane, I came on an excellent crop of potatoes in a district where most of the crops were very bad. This man manured his land in winter with sea weed, and planted the potatoes first week in March. Exchanges his seed every year with a friend of his who lives near Milltown, some 12 miles away. Always uses the best of the potatoes for seed, and never puts down small ones uncut. He has a good crop every year. His land is dry.

Several cases of this kind came under my notice, and prove the great advantage of carefully selecting seed.

Potatoes which have this year developed and matured and resisted the blight, and thus proved their disease-resisting powers, must be good for seed if changed to land of different character to what they grew upon.

Looking back upon all the districts I have been over, one thing prominently before my mind is the fact that, under all conditions, as to soil, time of sowing, and cultivation, the crop has failed on wet land. Even though fresh seed be introduced the recurrence of a wet season like the past will have disastrous results upon the potato crop.

On dry land the crop does not fail when care is bestowed on the selection of seed, and the cultivation effected with ordinary skill.

To prevent a general failure of the potato crop in districts where wet land prevails, the first and most essential step is to drain the land. To do so would confer an enormous permanent benefit upon the country generally, and in particular, upon the occupiers of small holdings in poor districts, where, as a rule, most of the land is wet.

In conclusion, I beg to append some notes conveying replies to such queries in my instructions as are not answered in this report or on accompanying summary.

(signed) *Henry Doran.*

#### KILLARNEY UNION.

Amount of loan all repaid to Board of Works.

Recipients of seed repaid the whole cost, except 132 £. which was charged to the general ratepayers.

£. 1,625 worth of White Rocks purchased. Balance Champions. Seed was got by tender.

Champion seed was good, and gave great satisfaction. Rocks did not do well, and scarcely any now grown.

Flounders and Pinks are grown for early crop; Champions for main crop.

The Guardians determined quantity of seed to be given to each person. The Clerk had control of the distribution, and was assisted by the Rate Collectors and Guardians of each Electoral Division.

A considerable quantity of seed is imported annually by seed merchants in Killarney, and the practice of changing the seed is becoming much more general.

Average amount of potatoes given, 2½ cwt.

Price of Champions. 12 £. a ton.

## CAHIRCIVKEN UNION.

Amount of loan, 3,900 *l*.

£1,481 7*s*. 6*d*., returned as irrecoverable, and still owing to Board of Works.

Seed was supplied by tender. About half loan spent on potatoes. All potatoes supplied were Champions.

The seed supplied was good. Everyone spoke highly of it.

Price paid for Champions was 12 *l*. per ton.

Largest quantity of seed given, 6 cwt.

Smallest quantity of seed given, 1 cwt.

Average quantity of seed given about 2 cwt.

## KENMARE UNION.

Amount of loan, 4,296 *l*.

All repaid to Board of Works.

Recipients repaid all except about 100 *l*. All Champions supplied. Most of it got direct from Scotland, and was excellent seed. Some got from a Cork contractor was not so good.

Largest quantity given, 16 cwt.

Smallest quantity given, 4 cwt.

Average, about 8 cwt.

## TRALEE UNION.

Amount of loan, 5,982 *l*. 8*s*. 4*d*.

Returned as irrecoverable, 1,597 *l*. 14*s*. 6*d*., and afterwards levied as a general rate.

The potatoes supplied were Champions and Rocks. Most of the Rock seed was purchased in the neighbourhood of Tralee, and did badly. The Champions were of good quality and gave great satisfaction.

Largest amount supplied was 5 cwt.

Smallest amount supplied was 1½ cwt.

Average amount, about 3 cwt.

## DINGLE UNION.

Amount of loan, 1,499 *l*.

All repaid to Board of Works.

Returned as irrecoverable, 131 *l*., which was levied by a general rate.

All potato seed supplied was Champion, imported direct from Scotland, and was of excellent quality. Paid 10 *l*. to 12 *l*. per ton for seed potatoes.

Largest amount given was 32 stones; smallest, 10 stones; average about 20 stones.

## LISTOWEL UNION.

Amount of loan, 5,584 *l*. 2*s*. 8*d*.

Seed supplied was Champion, White Rocks, and Leather Coats. Champion was the only seed which turned out well.

Largest quantity supplied was 4 cwt.

Smallest quantity supplied was 1½ cwt.

Average quantity supplied, about 2 cwt.

Seed got by tender.

## GLIN UNION.

Amount of loan, 2,352 *l*. 3*s*.

All loan repaid to Board of Works.

Seed was supplied by tender. It was all Champion seed, and proved to be of good quality. But there appears to have been extensive fraud practised as regards weight. Some of the sacks of potatoes contained as much as 2 stones of clay. This was not discovered until the people took home their supply.

Some

Some of them brought back the sacks of potatoes and clay intact, others brought the clay only. The Guardians took legal proceedings against the contractor, but they recovered only value, representing weight of clay in bags returned to Union, without having been emptied.

Largest amount of seed given was 6 cwt.

Smallest amount of seed given was 2 cwt.

Average amount, about 4 cwt.

#### RATHKEALE UNION.

Amount of loan, 1,773 *l.* 7 *s.* 2 *d.* All repaid to Board of Works.

Recipients paid for all they got. Not a sixpence lost.

All potatoes got, except 30 *l.* worth, were Champions. £ 30 worth of White Rocks were purchased. The Rocks were got from near Galway. They were good looking seed, and turned out as well as the Champions.

Seed was got by tender.

Guardians required contractor to produce shipping papers, invoices, &c., to show seed was imported.

Largest quantity supplied was 50 stones.

Smallest quantity supplied was 16 stones.

Average quantity supplied, about 40 stones.

Prices, 12 *l.* per ton for Champions, and 8 *l.* per ton for Rocks.

#### KANTURK UNION.

Amount of loan, 7,046 *l.* 2 *s.* 2 *d.*

All repaid to Board of Works.

Recipients repaid all they owed, except about 25 *l.*

Full amount of loan was expended on purchase of potatoes, except 496 *l.* which was spent upon oats.

All potatoes purchased were Champions, and gave great satisfaction.

Each person got about 5 *l.* worth of seed, including oats.

Seed got by tender. Committee of Guardians inspected it before delivery to the people.

Price of seed, 12 *l.* per ton.

#### MILL-STREET UNION.

Amount of loan, 4,642 *l.*

Repaid all to Board of Works.

Recipients repaid all cost of seed.

The people paid the seed-rate cheerfully, and the collectors found no difficulty in collecting it.

Seed supplied by tender. All was Champion except about 4 tons of other seed. Champions were excellent; the others worthless.

Largest quantity given, 60 stones.

Average quantity given, 32 stones.

Smallest quantity given, 24 stones.

Price of Champions, 12 *l.* and 12 *l.* 10 *s.*

#### MACROOM AND DUNMANWAY UNIONS.

I did not interview Clerks of Unions, believing Mr. Porter had done so.

(signed) *H. Doran.*

## REPORT ON THE SUPPLY AND DISTRIBUTION OF SEED, WITH SUGGESTIONS.

In the Unions I visited the Guardians advertised for contractors to supply the seed potatoes they required. Tenders were received and accepted in the usual way.

In nearly all cases the potatoes obtained were Champions and White Rocks.

Considering that so little precaution was anywhere taken to provide against imposition, and ensure the supplying of genuine seed, it is a matter of surprise that so few complaints are to be heard against the character of the seed supplied. It is to be observed that most of the seed was supplied by respectable firms of seed merchants, whose good reputation would have been lost if they supplied, to any large extent, seed not true to name.

No Clerk of Union, or anyone else I met, asserted that the Champion seed sold in 1880 was bad. There were many complaints of the other sorts.

In the Tralee Union some local people were accepted as contractors for the supply of White Rocks. These men purchased their potatoes in the immediate locality, and the seed proved worthless.

In the Killarney Union, where a large quantity of White Rocks was distributed, a Cork potato merchant was contractor. I do not know where he purchased the seed, but most of it was taken to Killarney by rail, and was brought, I presume, from a remote district. In nearly all cases this seed did well for the first two years, but, since then, the people have substituted the Champion for it.

These facts give additional proof of the advantage of change of seed, from one district to another.

In the Kenmare Union, a Committee of the Guardians got the first portion of their supply of Champions direct from Forfarshire, and they proved to be excellent seed, and much superior to that subsequently supplied by an Irish contractor, although nobody seemed to doubt that the latter were Champions.

The strikingly different results under slightly varying conditions that have come under my notice this year, and during my past experience, convinces me, that to obtain the best results from a change of seed, it is essential that before selecting seed for a particular farm or district, one should be familiar with the character of the soil, and the local conditions of the place where the crop was previously grown.

Previous to 1880 very little Champions were grown in Ireland. Now they form the main crop.

In the event of a renewal of the Seed Supply Act of 1880, there is much more necessity now than there was then, owing to the general growth of the Champion, for the adoption of every precaution necessary to ensure that the seed supplied by a contractor is what it purports to be.

In addition to the suggestion I have already made to prohibit the exportation of potatoes from Ireland before April 1891, I would also suggest that the contractors should be bound by a bond, under a heavy penalty, to supply seed true to name and character, and from the country or district agreed upon. The liability under the bond would remain in force for a year. The contractors should be required to produce shipping papers and invoices of imported lots; and railway dockets and invoices of lots brought from one part of Ireland to another. A committee of the Guardians should inspect seed after delivery at their stores.

In the distribution of seed some abuses did occur.

Persons over 15 *l.* valuation were not entitled to receive seed under Act of 1880, but they did sometimes obtain it surreptitiously in the name of a non-rated person, often one of their own labourers, for whom they became surety for repayment.

To prevent a repetition of these losses, which occurred in 1880, I would recommend that the following course of procedure be adopted:—

The Guardian of each Electoral Division would be supplied by Clerk of Union with requisition forms containing the names, and full description from rate-books, of persons entitled to receive seed. Any person requiring seed should apply







MR. JAMES ROBERTSON'S REPORT UPON THE POTATO CROP  
OF 1890 IN GREAT BRITAIN.

I left Dublin on the 15th September for Glasgow, and visited the following Counties in Scotland:—Perth, Forfar, Fife, Moray and Elgin, Aberdeen, Inverness, Ross, Wigton, and Dumfries, as also the Counties surrounding Glasgow.

It may be well that I give you, for future reference, the acreage planted in these Counties; the acreage of the current year has not been published, but the total areas planted in potatoes in 1889 as (ascertained on the 4th June) was 154,746 statute acres.

The Counties, taking their total area into consideration, in which these roots were most extensively planted, were Fife and Forfar, the area occupied being respectively 16,822 and 15,760 acres; a large breadth is also grown in Perthshire, viz.:—16,512 acres.

In many of the Scotch Counties a greater area is covered than suffices for home consumption, but in others potatoes are planted largely for trading purposes. These are, Ayr, 8,690 acres; Dumfries, 5,250 acres; Midlothian, 5,799 acres; Haddington, 8,085 acres; Inverness, 7,482 acres; Lanark, 5,712 acres; Ross and Cromarty, 9,636 acres; Aberdeen, 7,729 acres; Argyle, 5,970 acres; Dunbarton, 2,286 acres; Stirling, 3,870 acres, respectively.

Commencing with the year 1879, the area devoted to the cultivation of potatoes in Scotland has been as follows:—

In 1879	-	-	-	-	174,743 acres.
1880	-	-	-	-	187,061 "
1881	-	-	-	-	189,161 "
1882	-	-	-	-	167,547 "
1883	-	-	-	-	168,694 "
1884	-	-	-	-	163,537 "
1885	-	-	-	-	148,994 "
1886	-	-	-	-	149,680 "
1887	-	-	-	-	149,839 "
1888	-	-	-	-	157,605 "
1889	-	-	-	-	154,146 "

A large quantity of potatoes has for some years been shipped from Scotland to America. Last year no less than 20,000 tons were despatched from two counties alone, which, if bought now, would probably cost, with carriage and freight to Dublin, over 100,000 *l.* This season, however, the somewhat better home price, and the increased American tariff, are almost sure to prohibit exportation, and this will consequently leave a large quantity available for home use.

A large quantity was consumed by cattle this year in Scotland; this season they will not be required because of the excellent crop of turnips all over Scotland.

Disease has much affected the early and second early varieties; in the counties surrounding Glasgow and in many places they did not pay for the lifting. The early sorts planted in Scotland are principally Redbog, Kemps, and Regents, the main crop varieties being Champions and Magnums. A comparatively new variety, "The Bruce," has also been pretty extensively planted with great success; it is an immense cropper, of good quality, and is absolutely free from disease. I have seen and heard of crops of from 12 to 14 tons per statute acre.

It is estimated that the Champions and other prolific sorts will average eight to nine tons per statute acre all over the country.

ENGLAND.

I visited the best potato-growing districts in England, viz., Bedfordshire, Cambridgeshire, Lincoln, and West Yorkshire, and also all the leading Metropolitan markets, including Covent Garden, The Borough, Spitalfields, Stamford, and King's Cross, as well as the provincial markets of Peterboro', Northampton, Manchester, and Leeds.

The crops in all these districts are large and practically no disease exists. The quality is exceptionally good, the tubers are very equal, and the crop having been lifted and secured in good weather they will keep well. The early varieties were all consumed before any disease attacked them.

The main crops grown are Magnums, Imperators, Beauty of Hebron, with a few Bruce; the Magnums, however, is the variety which is feeding the millions in England. Beauty of Hebron is a second early of the very finest quality, and on this account is largely grown to meet the wants of the very best markets. Imperators, to my mind and in my experience are unsuitable for Ireland, and there would also be great difficulty in getting them in quantity from districts, from which they would be a desirable change.

The Bruce I have already alluded to in Scotland; nowhere in England, I may mention, did I meet with any Champions or Dunbar Regents, although the latter for many years obtained the highest price in the London markets.

#### SUGGESTIONS.

At the outset of my investigation I was disposed to recommend that a limited quantity of early potatoes should be obtained, but I have been induced to abandon this owing to the difficulty of getting suitable seed. The only variety which in character would do universally for the purpose is the Regent Kemp, and crops of it this season are small and much diseased.

Two other plans are worthy of consideration, and I shall endeavour to lay before you the considerations which surround both methods.

First, supply Champions only.

Second, "  $\frac{1}{2}$  Champions,  $\frac{1}{2}$  Magnums,  $\frac{1}{2}$  Bruces.

To deal with the first proposal it is universally known that the Champion is the variety which is a long way the most largely grown in this country, and it has taken the hold on the people, primarily on account of its immunity from disease; secondly, because of its undoubted property of withstanding extremes of climate, and of its robustness of growth; and lastly, because of its being essentially a variety thoroughly suited for conditions under which the potato is a large constituent of the people's food. By this latter clause I mean that there appears to be something in the Champion that, potato for potato, makes it more satisfying as a staple article of food than any other variety.

On some parts of the Continent the Champion is, at the present time, grown with success at an altitude where other varieties are comparatively useless.

While the Champion is incomparably of better condition and constitution at the present time than the existing varieties of the disastrous years of 1879 and 1880 then were, still it is not so free from disease as at its introduction, and it is to be expected that, if it follow the career of its predecessors, it must continue to deteriorate; for this reason the second proposal is worthy of consideration, as by its adoption you would introduce new varieties of potatoes into the country, and it would obviate entire reliance being put on the Champion, while if the Magnum Bonums and the Bruces did not prove suitable (on which point I have no doubt), the quantity suggested is not large, either one or both could be allowed to die out after producing a crop, if the farmers found it desirable.

(signed) *James Robertson.*

La Mancha, Malahide, County Dublin,  
22 October 1890.



EXTRACTS from REPORTS upon the POTATO CROP, 1890, made for the IRISH LAND COMMISSIONERS, in certain UNIONS of the Counties of CLARE, CORK, DOWDAL, GALWAY, KERRY, LEITRIM, LIMERICK, MAYO, SLIGO, WATERFORD, and WILFORD, by MEMRS. CONNELL, DILLON, DOWD, EYRE, HEADLICK, PORTER, and ROBERTS, Assistant Commissioners, with a REPORT upon the POTATO CROP of GREAT BRITAIN in 1890; and also upon the Supply and Distribution of SEED, with Suggestions.

(*Mr. Arthur Balfour.*)

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